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aeromet

MONTHLY PROGRESS REPORT NO. 12
for the period February 1-28, 1977
to
ENVIRONMENTAL PROTECTION AGENCY
REGION VIII

1860 Lincoln St., Suite 900
Denver, CO 80203

Contract No. 68-01-1946

Colorado C-b Tract

aeromet inc.

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by

Aeromet, Inc.
Box FF
Norman, OK 73070

Colorado C-b Tract

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1.0 INTRODUCTION

Low level temperature and wind data were collected for February, 1977 at Casper, Wyoming; near the Shell Oil Co. Colorado C-b Tract 25 miles west of Rio Blanco, Colorado; Craig, Colorado; Escalante and Hanksville Utah; Rock Springs, Wyoming; and the U-a/U-b Tract 5 miles south of Bonanza, Utah. The data collection was made using a 30 gm helium filled pilot balloon with a temperature sonde attached, a single theodolite and a TSR-2 receiver/recorder twice a day every other day. The observations were made $\frac{1}{2}$ hour after sunrise and 1400L.

The pilot balloon had an ascent rate of 500 ft/min and it was tracked by a single theodolite for 12 minutes with the azimuth and elevation angles recorded every 30 seconds on a cassette tape recorder. The tape was transcribed to a pilot balloon form after the observation.

The temperature sonde operated at 403 MHz and the signal was received by a ground plane antenna at least 24 ft. AGL which was attached to the Aeromet, Inc. TSR-2 receiver/recorder. The TSR-2 receiver has a built-in Rustrak strip chart recorder and the temperature was recorded within the range from -50°C to $+50^{\circ}\text{C}$. A baseline temperature calibration was performed with each T-Sonde by the adjustment of the recorded temperature to match the thermometer measured temperature next to the transmitting sonde. Once the calibration check was finished the balloon was released with the sonde attached and the temperature was recorded for at least 20 minutes. At the completion of each observation the data were mailed to Aeromet, Inc.

The Monthly Progress Report is divided into seven parts, one corresponding to each of the seven field sites. The collected temperature and wind data are accurate and have not been edited unless otherwise stated in the Pilot Balloon Summary Section. However, the obvious errors sometimes found in the recorded azimuth and elevation angles are corrected without mention. For example, the sequence of azimuth angles . . . 76.6, 75.3, 47.8, 73.8 . . . can be corrected without ambiguity. The more ambiguous errors are brought to the attention of the reader if editing has been performed, otherwise, the data are left as recorded and the filtering is left to the individual user. An example is the wind profile for Hanksville on 06/29/76 at 1300 MST found in the Monthly Progress Report No. 4. The azimuth angles starting 30 seconds after the launch and incremented by the same are as follows . . . 109.0, 110.0, 110.0, 281.0, 280.0, 282.0 . . . , while the corresponding elevation angles are as follows, . . . 60.0, 57.6, 58.7, 58.6, 52.7, 44.3 The wind speed and direction change dramatically over the interval as can be seen in the report since these data were not edited.



2.0 DATA SUMMARY

2.1 Colorado C-b Tract Field Summary

The observer that took over the responsibilities in January continued to do a good job. No major problems were experienced during the month of January.

The observer attempted 100% of the scheduled pilot balloon launches resulting in 100% recovery of the temperature data and 86% recovery of the wind data. Snow storms prevented the observer from collecting the additional 14% of wind data.



2.2 Mixing Layer Height

The average mixing layer height was computed for the morning and afternoon based on the morning and 1400L temperature soundings. The balloon release $\frac{1}{2}$ hour after sunrise is near enough to the minimum temperature to assume the correctness of the calculated mixing layer heights. The afternoon balloon release is generally not at the time of maximum heating and the user of the mixing layer height data must be aware that minor changes in the calculated values can be expected. Without equipping the field sites with minimum/maximum thermometers the extrapolation of the afternoon data can not be justified in establishing a data base for statistical analysis. The approximation of the afternoon maximum temperature would be a "calculated guess" for there are: 1) local effects which are to be determined and would be filtered out with extrapolation, 2) mountain effects which alter the lower 1500m (e.g. downslope effects), and 3) meteorological effects which can alter the expected change in the sounding (e.g. advection, moisture, etc.).

It is felt that to better define the mixing layer height that a variety of "heat island" effects should be viewed. The rigorous method would be to define 15 "heat island" effects ranging from 0 to 14°C and let the user decide which would best serve his needs. However, for these analysis 0°, +5° and +10° "heat island" effects are calculated and listed for the morning and afternoon soundings in the table Average Mixing Layer Height.

The symbol N/D. means that no mixing layer height was defined and sfc is the abbreviation for surface.

2.3 Stability and Inversion Classification

The temperature and wind data were edited to remove data felt to cause anomalous results in the stability and inversion classification schemes. Only the stations listed prior to the table classifying the inversions were used in the calculations.



3.0 DATA PROCESSING

3.1 Printed and Plotted Output

Wind speeds and directions are computed from the azimuth and elevation angles measured while tracking the balloon with the theodolite. The wind speed and direction are plotted versus height and printed out at 30 second intervals. The printed output includes the AGL and MSL height of the calculated wind value and the orthogonal components of the wind. The wind profile is also punched on computer cards at 30 second intervals.

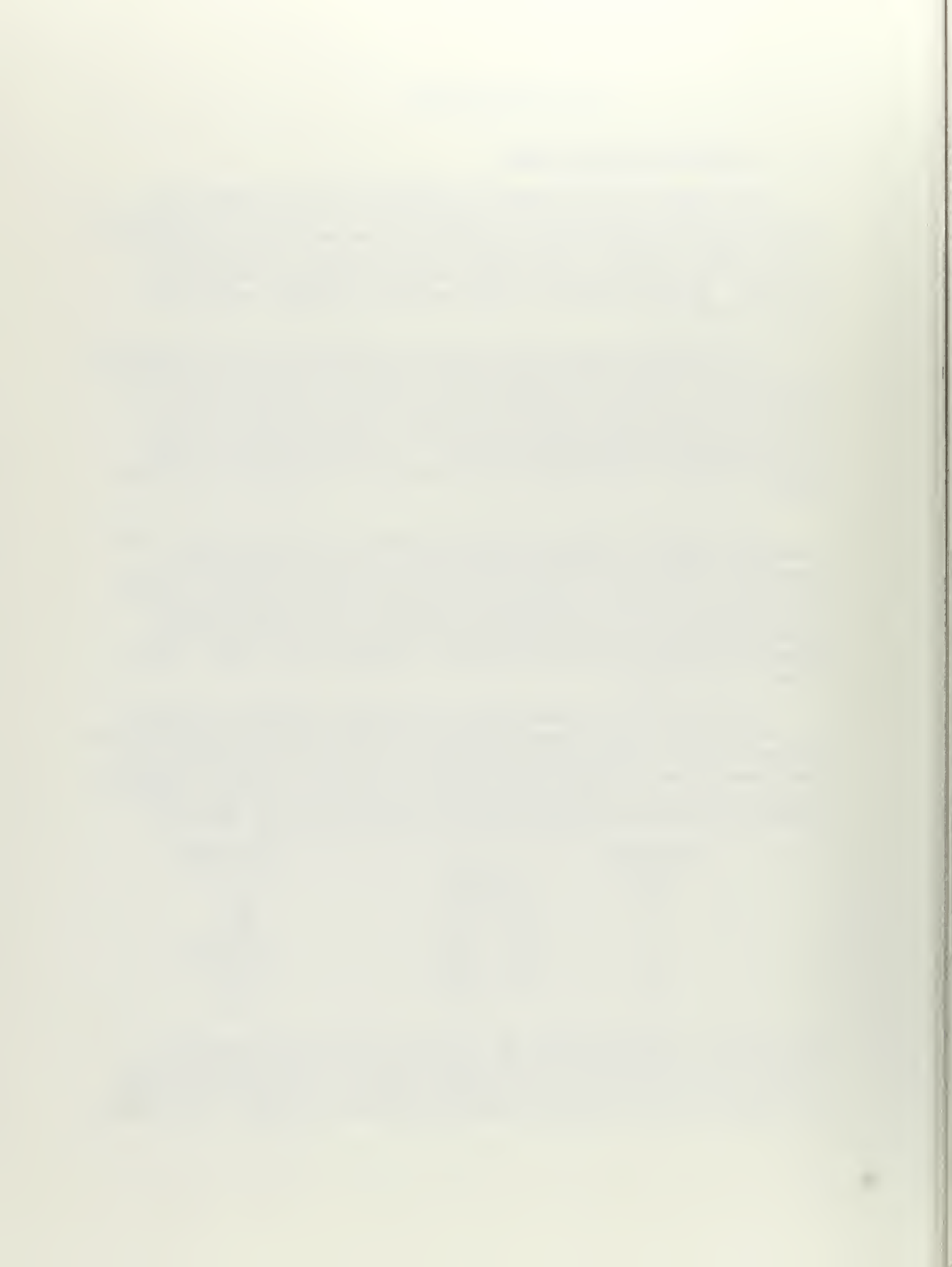
The temperature data are processed and plotted with the temperature and the lapse rate per 300 meters versus height at 15 second intervals. Tic marks are placed on the temperature plot at significant levels. A solid line to the right side of the plot indicates the data for that layer are interpolated temperature values. The temperature data are also printed out and punched on cards. The asterisk beside a height value indicates a significant level while a "?" indicates interpolated data.

The temperature data are also processed to produce for each site a monthly summary of inversion layers and lapse rates within the inversions and from the inversion base to the surface by means of the Holzworth classification scheme for inversions (Holzworth, G.C., 1974: "Climatological Data on Atmospheric Stability in the United States" Paper presented at the American Meteorological Society Symposium on Atmospheric Diffusion and Air Pollution, September 9-13, 1974. Santa Barbara, California.)

The temperature and wind data are processed together to produce for each site a monthly average bivariate frequency distribution of wind direction versus wind speed represented in the 500m layer adjacent to the ground. The distribution is presented by the six Pasquill stability classes (A-F) and a summary independent of stability. If the $\Delta T/100m$ criterion is met but the wind speed criterion is not met, then the

STABILITY CLASS	ΔT ($^{\circ}C/100m$)	WIND SPEED
A	<-1.9	≤ 2
B	$-1.9 - -1.7$	≤ 5
C	$-1.7 - -1.5$	≤ 6
D	$-1.5 - -0.5$	ALL SPEEDS
E	$-0.5 - 1.5$	< 5
F	> 1.5	≤ 3

wind data are checked against the criterion for the next stability class, always cascading to the D stability class. Once the wind speed criterion is met the data are classified under the new stability class even though now the lapse rate exceeds the class criterion. For example,



if the $\Delta T/100\text{m}$ value is 1.7 and the wind speed is 7 m/s, the lapse rate criterion is met for the stability class F, however the wind speed criterion is exceeded. The wind speed is greater than the 5 m/s maximum limit for class E but falls within the criterion of class D, which includes all wind speeds. As a result the observational data with a ΔT value of $1.7^\circ\text{C}/100\text{ m}$ and a wind speed value of 7 m/s are classified under stability class D, not class F.

The data are also punched on computer cards in a format compatible with the STAR PROGRAM of the National Climatic Center, NOAA, U.S. Department of Commerce.



3.2 Punched Output

The punched temperature and wind data for each observation are categorized into four groups, each separated by a blank card. The first group begins with a header card listing the station name (3A4), the station elevation in meters (I4), the month, date and year (I6), the observation time (I4), the time zone (A3), the balloon ascent rate in feet per minute (I3), the sampling interval in seconds (I2), the temperature error in °C (F5.1), the T-Sonde I.D. number (I5) and the surface wind speed in kts and direction (2F6.1). A surface wind speed of 180.0 KTS indicates missing surface wind data. The series of cards prior to the first blank card include on each card the elapse time in minutes (2X,F5.1), the height of the balloon in meters AGL (4X,F5.0), the height of the balloon in meters MSL (4X,F5.0), the temperature in °C (4X,F6.2), the change in temperature between standard or significant levels (2X,F6.2), the lapse rate per 300m (2X,F6.2), the difference in the lapse rate per 300m and the dry adiabatic lapse rate per 300m (2X,F6.2), the wind speed in m/s if known (4X,F5.1), and the wind direction if known (3X,F5.0). The cards following the first blank card include on each card the elapse time in minutes (2X,F5.1), the height in meters AGL (4X,F5.0), the height in meters MSL (4X,F5.0), the u-component of the wind in m/s (4X,F6.1), the v-component of the wind in m/s (6X,F6.1), the wind speed in m/s (7X,F5.1), the wind direction (6X,F5.0), the elevation angle in degrees (F5.1) and the azimuth angle in degrees (F5.1). The cards after the second blank card include a header card like before and a series of cards with four groups of the following on each card; the height in meters AGL (F6.1), the temperature in °C (F6.2), the lapse rate °C/300m (F6.2) and a blank space (1X). The cards after the third blank card include a header card the same as described earlier, eight cards with the original digitized temperature data and a flag to indicate interpolated data (20(F3.1,I1)), five cards with the elevation angle in degrees (16F5.1), and five cards with the azimuth angle in degrees (16F5.1). The temperature data are in degrees Celsius and have 50°C added to each value. An elevation angle of 180° indicates a missing azimuth and elevation angle value.

The punched output from the bivariate frequency distribution calculations include a header card as illustrated below,

MONTH: MARCH	YEAR: 1976.	CASPER	SFC TO 500 METERS
1 1 1	1 1	1 1	1 1
1 1 1	1 1	1 1	1 1

[illegible]



and the punched distribution data for each wind direction under each stability class in agreement with the "star" output. The stability classes are number coded as follows:

STABILITY CLASS	NUMBER CODE
A	1
B	2
C	3
D	4
E	5
F	6
Independent of Stability	7

The station I.D. numbers are as follows:

STATION	I.D. NUMBER
Casper, Wyoming	1
Colorado C-b Tract	2
Craig, Colorado	3
Escalante, Utah	4
Hanksville, Utah	5
Rock Springs, Wyoming	6
Utah U-a/U-b Tract	7

The month and season number codes are as follows:

MONTH	1-12
SEASON	13 = DJF
	14 = MAM
	15 = JJA
	16 = SON
ANNUAL	17



PILOT BALLOON SUMMARY
Colorado C-b Tract
February, 1977

February 2	0800	No wind data received due to snow.
	1400	
February 4	0820	Balloon was lost in the clouds after 3 minutes.
	1400	
February 6	0800	
	1400	
February 8	0800	
	1400	
February 10	0800	
	1400	
February 12	0800	
	1400	Balloon was lost in the clouds after 11 minutes.
February 14	0800	Balloon was lost in the clouds after 9 minutes.
	1400	Balloon was lost in the clouds after 6 1/2 minutes.
February 16	0825	Balloon was lost in haze after 7 1/2 minutes.
	1400	



PILOT BALLOON SUMMARY
Colorado C-b Tract
February, 1977

February 18	0810	
	1400	
February 21	0800	
	1400	Balloon was lost in the clouds after 11 minutes.
February 22	0800	No wind data received due to snow.
	1400	No wind data received due to snow.
February 24	0800	Balloon was lost in the clouds after 11 minutes.
	1400	Balloon was lost behind a hill after 7 minutes.
February 26	0800	
	1400	No wind data received due to snow.
February 28	0800	Balloon was lost in the clouds after 7 minutes.
	1400	



CLOUD COVER AND SIGNIFICANT WEATHER

Colorado C-b Tract

February, 1977

<u>DATE</u>	<u>MORNING</u>	<u>AFTERNOON</u>
2	overcast, snow	broken, snow S
4	broken	scattered
6	clear	clear
8	clear	clear
10	clear	clear
12	scattered	scattered
14	broken	overcast
16	broken	scattered
18	scattered	broken
21	broken	overcast
22	broken, snow	overcast, snow
24	broken	broken, snow south
26	scattered	overcast, snow
28	scattered	scattered



AVERAGE MIXING LAYER HEIGHT

Colorado C-B Tract

February, 1977

HEIGHT IN METERS

DATE	MORNING			AFTERNOON		
	0°	+5°	+10°	0°	+5°	+10°
2	200m	1000m	1700m	sfc	1250m	2600m
4	sfc	150m	400m	1100m	1350m	2100m
6	sfc	100m	200m	300m	1150m	3100m
8	sfc	50m	100m	200m	1750m	N/D
10	sfc	100m	200m	sfc	1250m	2250m
12	sfc	150m	250m	250m	2250m	N/D
14	200m	950m	2100m	1700m	2000m	3000m
16	sfc	150m	350m	sfc	1700m	2750m
18	sfc	150m	350m	1150m	3800m	N/D
21	sfc	100m	700m	2300m	2600m	3400m
22	1250m	2250m	3300m	750m	2700m	N/D
24	1200m	N/D	N/D	sfc	1000m	1450m
26	sfc	200m	1150m	2200m	N/D	N/D
28	50m	750m	1800m	1750m	1950m	3400m

COL CB TRACT ELEV 2025 METERS SOUNDING ID 0
DATE 02/02/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
166.	281.	0.0	-1.17

COL CB TRACT ELEV 2025 METERS SOUNDING ID 4117
DATE 02/02/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	38.	0.0	0.0

COL CB TRACT ELEV 2025 METERS SOUNDING ID 4110
DATE 02/04/77 TIME 08:20MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	495.	1.34	0.0

COL CB TRACT ELEV 2025 METERS SOUNDING ID 4120
DATE 02/04/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
597.	635.	0.0	-1.22

COL CB TRACT ELEV 2025 METERS SOUNDING ID 4118
DATE 02/06/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

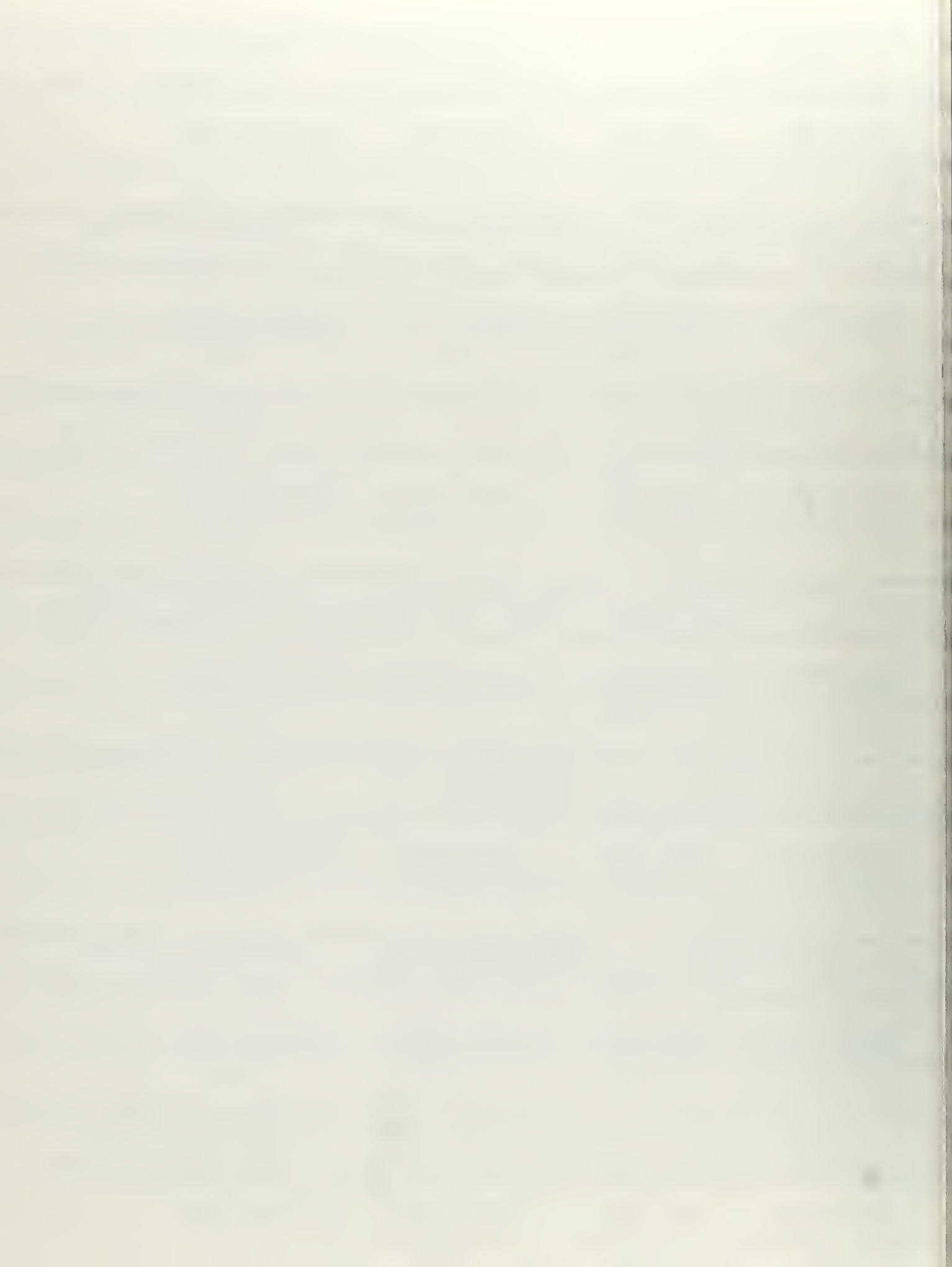
INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	610.	2.06	0.0

COL CB TRACT ELEV 2025 METERS SOUNDING ID 4119
DATE 02/06/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
333.	371.	0.50	-1.00

COL CB TRACT ELEV 2025 METERS SOUNDING ID 4108
DATE 02/08/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	381.	4.03	0.0



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4107

DATE 02/08/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

38.

0.0

0.0

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4109

DATE 02/10/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

762.

1.89

0.0

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4124

DATE 02/10/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

38.

0.73

0.0

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4117

DATE 02/12/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

800.

1.45

0.0

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4122

DATE 02/12/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

114.

159.

0.20

-1.38

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4111

DATE 02/14/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

136.

297.

0.41

-1.76

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4104

DATE 02/14/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

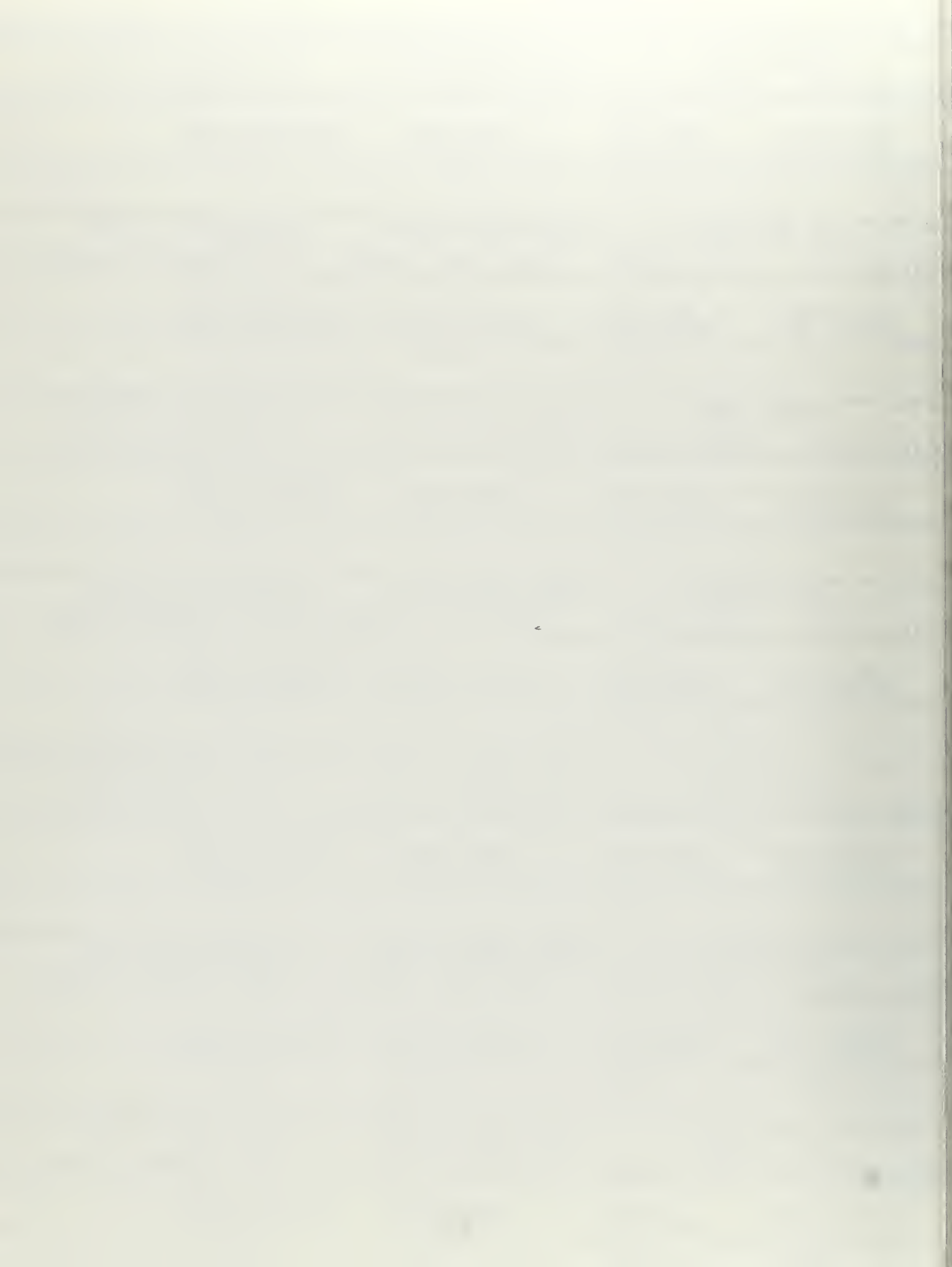
INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

727.

770.

0.0

-1.10



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4115

DATE 02/16/77

TIME 08:25MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

533.

1.30

0.0

COL CB TRACT ELEV 2025 METERS SOUNDING ID 3784

DATE 02/16/77

TIME 14:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

38.

0.97

0.0

COL CB TRACT ELEV 2025 METERS SOUNDING ID 3786

DATE 02/18/77

TIME 08:10MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

305.

2.26

0.0

COL CB TRACT ELEV 2025 METERS SOUNDING ID 3785

DATE 02/18/77

TIME 14:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

316.

354.

0.73

-1.35

COL CB TRACT ELEV 2025 METERS SOUNDING ID 3791

DATE 02/21/77

TIME 08:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

0.

191.

2.92

0.0

COL CB TRACT ELEV 2025 METERS SOUNDING ID 3787

DATE 02/21/77

TIME 14:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 0M OF THE SFC

LAYER BASE
METERS AGLLAYER TOP
METERS AGLDT/DZ
(DEG C)/100M

0.

100.

-1.53

100.

250.

-0.76

250.

500.

-1.16

500.

750.

-0.90

750.

1000.

-1.04

1000.

1500.

-1.01

COL CB TRACT ELEV 2025 METERS SOUNDING ID 3790

DATE 02/22/77

TIME 08:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

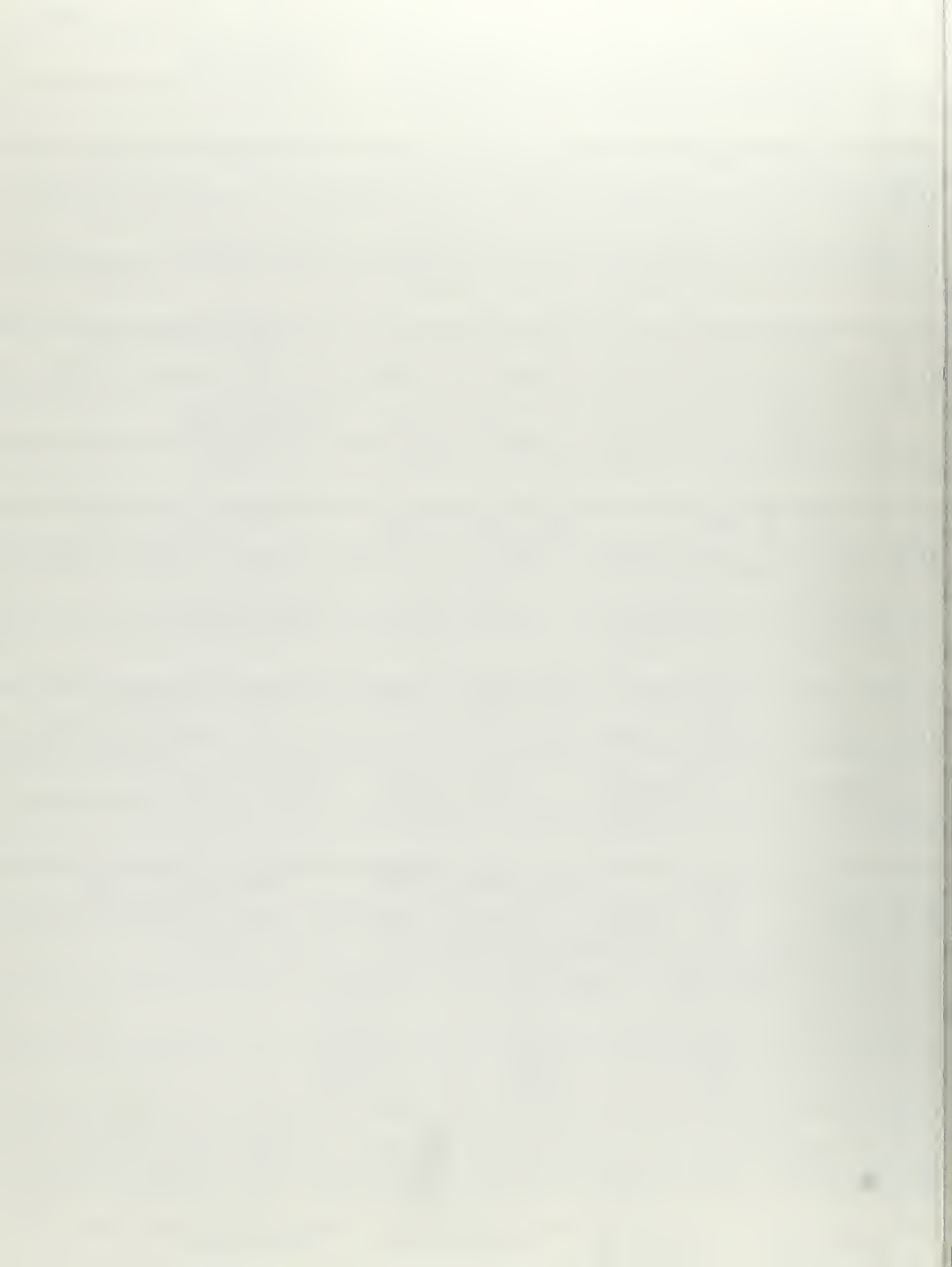
INV BASE
METERS AGLINV TOP
METERS AGLINV DT/DZ
(DEG C)/100MDT/DZ BELOW INV
(DEG C)/100M

849.

888.

0.0

-1.00



COL CB TRACT ELEV 2025 METERS SOUNDING ID 3778
DATE 02/22/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
530.	568.	1.26	-1.17

COL CB TRACT ELEV 2025 METERS SOUNDING ID 3776

DATE 02/24/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
1188.	1226.	0.52	-0.97

COL CB TRACT ELEV 2025 METERS SOUNDING ID 3777

DATE 02/24/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	152.	0.87	0.0

COL CB TRACT ELEV 2025 METERS SOUNDING ID 3781

DATE 02/26/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
0.	419.	0.89	0.0

COL CB TRACT ELEV 2025 METERS SOUNDING ID 3783

DATE 02/26/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

THERE ARE NO INVERSION BASES WITHIN 1500M OF THE SEC

LAYER BASE METERS AGL	LAYER TOP METERS AGL	DT/DZ (DEG C)/100M
0.	100.	-1.90
100.	250.	-0.73
250.	500.	-1.03
500.	750.	-1.09
750.	1000.	-1.05
1000.	1500.	-0.99

COL CB TRACT ELEV 2025 METERS SOUNDING ID 3782

DATE 02/28/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
76.	267.	1.01	-0.38

COL CB TRACT ELEV 2025 METERS SOUNDING ID 3780

DATE 02/28/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

INV BASE METERS AGL	INV TOP METERS AGL	INV DT/DZ (DEG C)/100M	DT/DZ BELOW INV (DEG C)/100M
38.	114.	0.37	-3.44



MONTH: FEBRUARY YEAR: 1977. COL CB TRACT FLEV 2025 METERS

HOLZWORTH'S CLASSIFICATION SCHEME FOR INVERSIONS
 MODIFIED TO SHOW TOTAL NUMBER INSTEAD OF PERCENT

THICKNESS (METERS)		INVERSION BASE HEIGHT (M)												TOTAL	
		1-100	101-250	251-500	501-750	751-1000	1000-1500	1501-3000	3001-2500	2501-3000	3001-2500	2501-3000	3001-2500		
100	1	1	1	2	3	0	0	0	0	0	0	0	0	13	5
250	1	0	0	0	0	0	0	0	0	0	0	0	0	4	2
500	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	2	3	0	2	3	0	1	0	0	0	0	0	0	26	0
INV TOTAL	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
DT/DZ	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
FROM BASE TO	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
SFC	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
NO INV TOT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DT/DZ FOR	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
SAME	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
LAYERS	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
AS INV	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
BASE	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1



MONTH: FEBRUARY YEAR: 1977. COL CB TRACT SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE A STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 5 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: FEBRUARY YEAR: 1977. COL CB TRACT SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE R STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 5 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: FEBRUARY YEAR: 1977. COL CB TRACT SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC)		GREATER THAN 21	AVERAGE SPEED	TOTAL
				11-16	17-21			
N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RELATIVE FREQUENCY OF OCCURRENCE OF THE C STABILITY CLASS IS 0.0

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 5 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: FEBRUARY YEAR: 1977. COL CB TRACT SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
N	0.00	0.07	0.00	0.00	0.00	0.00	4.3	0.07
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00
NNE	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00
NNE	0.07	0.00	0.00	0.00	0.00	0.00	0.2	0.07
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00
ESE	0.07	0.00	0.00	0.00	0.00	0.00	0.0	0.07
ESE	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00
SSE	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00
SSW	0.07	0.07	0.07	0.00	0.00	0.00	0.0	0.21
SSW	0.07	0.00	0.00	0.00	0.00	0.00	0.0	0.07
SSW	0.00	0.00	0.14	0.00	0.00	0.00	0.3	0.14
SSW	0.00	0.07	0.00	0.00	0.00	0.00	0.4	0.07
WNW	0.07	0.07	0.00	0.00	0.00	0.00	0.3	0.14
WNW	0.00	0.07	0.00	0.00	0.00	0.00	0.3	0.07
WNW	0.00	0.07	0.00	0.00	0.00	0.00	0.3	0.07
NNW	0.00	0.07	0.00	0.00	0.00	0.00	0.4	0.07
AVG SPEED	2.0	4.1	8.1	0.0	0.0	0.0		0.0
TOTAL	0.36	0.43	0.21	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE D STABILITY CLASS IS 0.61

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 5 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: FEBRUARY YEAR: 1977. COL CB TRACT. SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.17	0.0	0.0	0.0	0.0	3.4	0.17
ESE	0.0	0.17	0.0	0.0	0.0	0.0	4.4	0.17
SSE	0.33	0.0	0.0	0.0	0.0	0.0	2.1	0.33
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.17	0.17	0.0	0.0	0.0	0.0	0.0	0.33
SSW	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	2.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	0.50	0.50	0.0	0.0	0.0	0.0	0.0	1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE E STABILITY CLASS IS 0.26

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 5 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: FEBRUARY YEAR: 1977. COL CB TRACT QFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNE	0.33	0.0	0.0	0.0	0.0	0.0	1.4	0.33
ENE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESE	0.33	0.0	0.0	0.0	0.0	0.0	2.1	0.33
SSE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSE	0.33	0.0	0.0	0.0	0.0	0.0	2.3	0.33
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WSW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NNW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
AVG SPEED	1.9	0.0	0.0	0.0	0.0	0.0		0.0
TOTAL	1.00	0.0	0.0	0.0	0.0	0.0		1.00

RELATIVE FREQUENCY OF OCCURRENCE OF THE F STABILITY CLASS IS 0.13

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 5 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



MONTH: FEBRUARY YEAR: 1977. COL CR TRACT SFC TO 500 METERS

NORMALIZED FREQUENCY DISTRIBUTION

DIRECTION	0-3	4-6	7-10	SPEED (METER/SEC) 11-16	17-21	GREATER THAN 21	AVERAGE SPEED	TOTAL
NNE	0.04	0.04	0.0	0.0	0.0	0.0	4.3	0.04
NNE	0.04	0.0	0.0	0.0	0.0	0.0	1.4	0.04
ENE	0.04	0.0	0.0	0.0	0.0	0.0	0.2	0.04
ESE	0.04	0.04	0.0	0.0	0.0	0.0	0.4	0.13
SSE	0.13	0.04	0.0	0.0	0.0	0.0	2.4	0.13
SSW	0.04	0.0	0.0	0.0	0.0	0.0	0.5	0.22
SSW	0.04	0.09	0.04	0.0	0.0	0.0	1.3	0.09
WSW	0.0	0.0	0.09	0.0	0.0	0.0	1.3	0.09
WNW	0.04	0.04	0.0	0.0	0.0	0.0	4.2	0.04
NNW	0.0	0.04	0.0	0.0	0.0	0.0	3.5	0.04
NNW	0.0	0.04	0.0	0.0	0.0	0.0	3.0	0.04
AVG SPEED	2.0	4.0	8.1	0.0	0.0	0.0		0.0
TOTAL	0.44	0.39	0.13	0.0	0.0	0.0		1.00

NORMALIZED FREQUENCY DISTRIBUTION INDEPENDENT OF STABILITY

RELATIVE FREQUENCY OF CALM 0.0

A TOTAL OF 5 SOUNDINGS FROM A SAMPLE OF 28 SOUNDINGS DID NOT HAVE 500 M OF TEMP AND WIND DATA



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID

0

DATE 02/02/77

TIME 08:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-3.21		0.0		2.6	360.
0.9	150	2175	-5.12	-1.91	-2.30	0.63	M	M
1.9	300	2325	-5.34	-0.22	-1.15	1.78	M	M
3.0	475	2500	-6.23	-0.89	-2.31	0.62	M	M
3.2	500	2525	-6.23	0.0	-2.31	0.62	M	M
6.3	975	3000	-8.10	-1.86	0.0	2.93	M	M
12.9	1975	4000	-8.98	-0.88	-2.72	0.21		
19.4	2975	5000	-15.53	-6.55	-2.36	0.57		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID

0

DATE 02/02/77

TIME 08:00MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	0.0	-2.6	2.6	360.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4117

DATE 02/02/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		1.98		0.0		5.1	315.
1.0	150	2175	1.03	-0.95	-3.20	-0.28	3.3	290.
1.9	300	2325	-0.31	-1.35	-2.08	0.85	3.7	318.
3.1	475.	2500.	-0.61	-0.31	0.0	2.93	3.0	334.
3.2	500	2525	-0.61	0.01	0.0	2.93	3.4	339.
6.0	975.	3000.	-3.99	-3.35	-1.53	1.40	8.0	348.
12.5	1975.	4000.	-9.08	-5.12	-1.75	1.18	5.8	27.
19.0	2975.	5000.	-15.04	-5.96	-0.98	1.94		
25.0	3975.	6000.	-21.89	-6.85	-2.40	0.53		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4117

DATE 02/02/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	3.6	-3.6	5.1	315.
0.5	76.	2101.	1.1	-0.3	1.1	285.
1.0	155.	2180.	3.3	-1.2	3.5	291.
1.5	234.	2259.	3.7	-1.2	3.9	288.
2.0	310.	2335.	2.3	-2.9	3.7	322.
2.5	386.	2411.	2.0	-1.5	2.5	306.
3.0	462.	2487.	1.3	-2.4	2.8	332.
3.5	539.	2564.	1.0	-3.9	4.0	345.
4.0	615.	2640.	1.0	-4.1	4.2	346.
4.5	691.	2716.	0.4	-4.1	4.1	355.
5.0	767.	2792.	0.3	-4.4	4.4	356.
5.5	843.	2868.	0.2	-5.5	5.5	358.
6.0	967.	2992.	1.8	-8.0	8.2	347.
6.5	1059.	3084.	0.0	-6.6	6.6	360.
7.0	1135.	3160.	-1.4	-6.9	7.0	12.
7.5	1211.	3236.	-3.0	-7.3	7.0	22.
8.0	1287.	3312.	-3.2	-7.2	7.9	24.
8.5	1364.	3389.	-3.8	-5.7	6.8	33.
9.0	1440.	3465.	-3.0	-4.6	5.5	33.
9.5	1516.	3541.	-1.6	-4.5	4.8	20.
10.0	1593.	3618.	-0.9	-5.2	5.3	10.
10.5	1673.	3698.	-0.9	-5.5	5.6	9.
11.0	1749.	3774.	-0.8	-5.4	5.5	9.
11.5	1825.	3850.	-1.8	-5.1	5.4	20.
12.0	1901.	3926.	-2.2	-5.1	5.6	23.
12.5	1978.	4003.	-2.6	-5.2	5.8	27.
13.0	2054.	4079.	-2.6	-5.2	5.8	27.
13.5	2130.	4155.	-2.6	-4.7	5.4	28.
14.0	2210.	4235.	-3.0	-5.4	6.2	29.
14.5	2286.	4311.	-4.6	-6.2	7.7	37.
15.0	2363.	4388.	-4.4	-5.7	7.2	37.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4110

DATE 02/04/77

TIME 08:20MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-8.98		0.0		M	M
1.0	150	2175	-5.65	3.33	2.69	5.62	2.5	104.
2.0	300	2325	-3.22	2.43	3.06	5.99	1.1	176.
3.0	* 457	2482	-2.34		1.14	4.07		
3.1	475.	2500.	-2.34	0.88	-0.95	1.98	M	M
3.3	500	2525.	-2.52	-0.18	-0.95	1.98	M	M
6.4	975.	3000.	-4.96	-2.44	-1.34	1.59	M	M
13.0	1975.	4000.	-6.82	-1.86	-2.12	0.81		
19.5	2975.	5000.	-10.66	-3.83	-3.31	-0.38		
25.9	3975.	6000.	-18.95	-8.30	-1.98	0.94		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4110

DATE 02/04/77

TIME 08:20MST

ASCENT RATE 500 FPM

DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
			THE WIND DATA ARE MISSING			
0.5	76.	2101.	-0.6	1.8	1.9	160.
1.0	152.	2177.	-2.5	0.5	2.5	102.
1.5	229.	2254.	-1.5	1.1	1.9	125.
2.0	305.	2330.	-0.0	1.0	1.0	179.
2.5	381.	2406.	0.5	1.1	1.3	206.
3.0	457.	2482.	-1.4	-0.3	1.4	79.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4120

DATE 02/04/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.7	SFC		8.39		0.0		5.1	270.
1.1	150	2175	4.98	-3.41	-5.96	-3.04	3.8	281.
2.0	300	2325	3.47	-1.52	-3.18	-0.25	5.3	291.
2.1	475.	2500.	2.27	-1.20	-2.44	0.49	3.5	335.
5.1	500	2525	1.99	-0.28	-2.26	0.67	3.7	343.
5.0	975.	3000.	-2.05	-3.85	-0.57	2.36	4.7	1.
6.0	*1127	3152	-2.05		3.41	6.34		
7.5	*1355	3380	0.35		-0.76	2.17		
11.6	1975.	4000.	-2.73	-0.87	0.76	3.69	8.1	87.
17.5	2975.	5000.	-9.86	-7.13	-3.89	-0.96		
23.8	3975.	6000.	-15.04	-5.18	-1.97	0.96		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4120

DATE 02/04/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	5.1	0.0	5.1	270.
0.5	76.	2101.	2.4	-0.3	2.5	276.
1.0	267.	2292.	5.5	-1.0	5.8	289.
1.5	404.	2429.	3.3	-1.8	3.8	298.
2.0	483.	2508.	1.3	-3.3	3.5	339.
2.5	559.	2584.	0.2	-4.4	4.4	357.
3.0	635.	2660.	0.9	-5.0	5.1	350.
3.5	711.	2736.	-0.4	-4.9	4.9	4.
4.0	798.	2823.	0.1	-4.7	4.7	359.
4.5	809.	2924.	1.8	-5.8	6.1	343.
5.0	975.	3000.	-0.1	-4.7	4.7	1.
5.5	1051.	3076.	-1.6	-4.5	4.8	19.
6.0	1127.	3152.	-1.4	-5.1	5.3	15.
6.5	1203.	3228.	-3.3	-5.9	6.8	29.
7.0	1280.	3305.	-5.0	-6.1	7.8	39.
7.5	1356.	3381.	-5.6	-4.7	7.4	50.
8.0	1432.	3457.	-6.5	-5.1	8.2	52.
8.5	1508.	3533.	-7.9	-7.5	10.9	46.
9.0	1584.	3609.	-7.4	-4.8	8.8	57.
9.5	1661.	3686.	-5.0	1.6	5.3	107.
10.0	1737.	3762.	-5.6	-1.9	5.9	71.
10.5	1813.	3838.	-5.6	-0.2	5.6	88.
11.0	1889.	3914.	-6.6	0.8	6.7	97.
11.5	1965.	3990.	-7.8	-0.4	7.9	87.
12.0	2042.	4067.	-9.6	-1.5	9.7	81.
12.5	2118.	4143.	-11.4	-2.2	11.6	79.
13.0	2194.	4219.	-12.9	-1.8	13.0	82.
13.5	2270.	4295.	-11.0	-1.4	11.0	83.
14.0	2346.	4371.	-12.1	-1.4	12.2	83.
14.5	2428.	4453.	-11.5	-1.4	11.6	83.
15.0	2523.	4548.	-13.1	-2.5	13.3	79.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4118

DATE 02/06/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-12.85		0.0		2.6	135.
1.0	150	2175	-7.42	5.43	8.47	11.40	4.7	105.
2.0	300	2325	-3.03	4.39	4.39	7.31	3.5	126.
2.8	* 419	2444	-1.09		1.33	4.26		
3.1	475.	2500.	-0.99	1.84	1.89	4.82	1.5	104.
3.3	500.	2525.	-1.00	0.18	1.89	4.82	1.4	91.
6.4	975.	3000.	-0.80	0.20	-0.19	2.74	4.7	41.
13.0	1975.	4000.	-3.51	-2.70	-1.53	1.40	9.8	18.
18.8	2975.	5000.	-10.76	-7.26	-2.73	0.20		
25.4	3975.	6000.	-15.84	-5.08	-2.96	-0.03		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4118

DATE 02/06/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	-1.8	1.8	2.6	135.
0.5	76.	2101.	-1.8	2.3	2.9	142.
1.0	152.	2177.	-4.7	1.1	4.8	103.
1.5	229.	2254.	-5.2	1.1	5.3	102.
2.0	305.	2330.	-2.7	2.1	3.4	127.
2.5	381.	2406.	0.1	0.5	0.5	187.
3.0	457.	2482.	-1.5	0.6	1.6	113.
3.5	533.	2558.	-1.3	-0.3	1.3	75.
4.0	610.	2635.	-0.5	-2.4	2.5	12.
4.5	686.	2711.	-1.3	-3.3	3.5	22.
5.0	762.	2787.	-1.5	-4.6	4.8	18.
5.5	838.	2863.	-2.9	-4.0	5.0	36.
6.0	914.	2939.	-3.6	-4.0	5.4	42.
6.5	991.	3016.	-2.9	-3.4	4.5	41.
7.0	1067.	3092.	-3.0	-4.6	5.5	33.
7.5	1143.	3168.	-3.2	-5.2	6.2	32.
8.0	1219.	3244.	-3.4	-5.8	6.7	30.
8.5	1295.	3320.	-2.6	-5.3	5.9	26.
9.0	1372.	3397.	-2.5	-5.0	5.6	27.
9.5	1448.	3473.	-3.1	-5.8	6.6	28.
10.0	1524.	3549.	-4.2	-7.8	8.8	28.
10.5	1600.	3625.	-3.7	-7.1	8.0	28.
11.0	1676.	3701.	-3.3	-7.4	8.1	24.
11.5	1753.	3778.	-3.5	-9.0	9.7	21.
12.0	1829.	3854.	-3.3	-9.1	9.7	20.
12.5	1905.	3930.	-3.3	-9.5	10.0	19.
13.0	1981.	4006.	-2.9	-9.3	9.8	17.
13.5	2057.	4082.	-3.3	-9.8	10.4	19.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4119

DATE 02/06/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		4.17		0.0		5.1	315.
0.9	150	2175	2.49	-1.67	-3.56	-0.63	6.8	253.
1.8	300	2325	0.85	-1.64	-2.07	0.86	4.4	295.
2.9	475.	2500.	0.07	-0.78	-2.46	0.47	4.5	296.
3.1	500	2525	-0.12	-0.19	-2.27	0.66	4.7	296.
6.2	975.	3000.	-3.21	-3.39	1.91	4.84	4.5	222.
12.0	1975.	4000.	-7.90	-4.19	-2.52	0.41	6.9	353.
17.8	2975.	5000.	-15.64	-7.94	-2.17	0.76		
24.2	3975.	6000.	-22.59	-6.96	-4.39	-1.46		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4119

DATE 02/06/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	3.6	-3.6	5.1	315.
0.5	76.	2101.	4.5	2.0	4.9	246.
1.0	162.	2187.	6.8	1.9	7.1	254.
1.5	255.	2280.	6.1	0.4	6.2	266.
2.0	333.	2358.	2.1	-2.2	3.1	317.
2.5	409.	2434.	2.6	-2.0	3.2	307.
3.0	486.	2511.	4.3	-1.9	4.7	294.
3.5	562.	2587.	3.7	-3.0	4.8	309.
4.0	638.	2663.	3.6	-3.6	5.1	315.
4.5	714.	2739.	0.8	-4.1	4.2	349.
5.0	790.	2815.	-1.2	-4.2	4.4	16.
5.5	870.	2895.	0.2	-3.2	3.2	357.
6.0	946.	2971.	0.2	-4.5	4.5	357.
6.5	1022.	3047.	0.2	-4.6	4.6	3.
7.0	1098.	3123.	-1.2	-4.3	4.5	15.
7.5	1175.	3200.	-2.4	-4.0	4.7	30.
8.0	1251.	3276.	-2.4	-5.1	5.6	25.
8.5	1327.	3352.	-2.1	-4.6	5.1	25.
9.0	1403.	3428.	-1.9	-4.2	4.6	24.
9.5	1479.	3504.	0.2	-4.9	4.9	358.
10.0	1556.	3581.	0.9	-4.8	4.9	349.
10.5	1632.	3657.	0.6	-4.8	4.9	353.
11.0	1736.	3701.	1.7	-5.6	5.9	343.
11.5	1846.	3871.	0.9	-6.4	6.5	352.
12.0	1968.	3993.	0.8	-6.9	6.9	353.
12.5	2060.	4085.	0.6	-6.0	6.0	354.
13.0	2147.	4172.	1.0	-7.1	7.1	352.
13.5	2281.	4306.	1.5	-10.1	10.2	352.
14.0	2382.	4407.	0.6	-8.8	8.8	356.
14.5	2458.	4483.	0.4	-9.0	9.0	358.
15.0	2534.	4559.	1.4	-11.0	11.1	353.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4108

DATE 02/08/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-14.34		0.0		1.0	135.
1.0	150	2175	-2.08	12.26	14.92	17.85	4.1	97.
2.0	300	2325	0.44	2.53	2.64	5.57	2.7	138.
2.5	* 380	2405	1.02		0.75	3.68		
3.1	475.	2500.	0.45	0.21	-0.38	2.55	3.5	201.
3.3	500	2525	0.46	-0.19	-0.38	2.55	3.5	205.
6.4	975.	3000.	-0.90	-1.36	-0.38	2.55	3.3	258.
13.0	1975.	4000.	-4.87	-3.97	-0.19	3.12		
19.4	2975.	5000.	-10.66	-5.79	-2.92	0.01		
25.7	3975.	6000.	-17.85	-7.19	-1.58	1.34		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4108

DATE 02/08/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	-0.7	0.7	1.0	135.
0.5	76.	2101.	-1.1	0.8	1.3	126.
1.0	152.	2177.	-4.1	0.4	4.1	96.
1.5	229.	2254.	-4.4	1.5	4.6	109.
2.0	305.	2330.	-1.7	2.0	2.6	140.
2.5	381.	2406.	-0.0	2.7	2.7	180.
3.0	457.	2482.	1.0	3.2	3.4	197.
3.5	533.	2558.	1.9	3.1	3.6	212.
4.0	610.	2635.	0.4	2.8	2.8	189.
4.5	686.	2711.	0.0	1.8	1.8	181.
5.0	762.	2787.	0.1	1.4	1.4	184.
5.5	838.	2863.	0.9	0.9	1.3	222.
6.0	914.	2939.	2.5	0.7	2.6	254.
6.5	991.	3016.	3.4	0.7	2.5	259.
7.0	1067.	3092.	2.7	0.3	2.8	263.
7.5	1143.	3168.	3.0	1.0	3.2	252.
8.0	1219.	3244.	2.6	1.4	2.9	243.
8.5	1295.	3320.	2.2	0.8	2.4	249.
9.0	1372.	3397.	1.9	-0.3	1.9	280.
9.5	1448.	3473.	2.5	-0.6	2.6	284.
10.0	1524.	3549.	3.4	-0.5	3.4	279.
10.5	1600.	3625.	3.6	-0.4	3.6	276.
11.0	1676.	3701.	3.5	-1.3	3.7	290.
11.5	1753.	3778.	2.9	-3.6	4.6	322.
12.0	1829.	3854.	2.1	-2.8	3.5	323.
12.5	1905.	3930.	2.8	-3.2	4.3	319.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4107

DATE 02/08/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		10.25		0.0		2.6	180.
1.0	150	2175	8.88	-1.37	-2.74	0.18	3.0	179.
1.9	300	2325	7.94	-0.94	-3.13	-0.20	2.5	196.
3.1	475.	2500.	5.11	-2.12	-4.08	-1.15	3.2	188.
3.2	500	2525	5.17	-0.64	-4.08	-1.15	3.1	188.
6.2	975.	3000.	1.12	-3.86	-3.39	-0.46	0.7	128.
12.4	1975.	4000.	-3.70	-5.02	-0.19	2.74	3.6	294.

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4107

DATE 02/08/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	-0.0	2.6	2.6	180.
0.5	76.	2101.	-0.2	2.7	2.7	175.
1.0	156.	2181.	-0.1	3.0	3.0	179.
1.5	232.	2257.	0.3	2.7	2.8	186.
2.0	308.	2333.	0.7	2.3	2.4	197.
2.5	386.	2411.	0.2	2.7	2.7	185.
3.0	462.	2487.	0.5	3.2	3.2	188.
3.5	552.	2577.	0.4	3.0	3.0	188.
4.0	644.	2669.	0.3	2.7	2.7	187.
4.5	720.	2745.	-0.0	2.3	2.3	179.
5.0	796.	2821.	0.4	2.0	2.1	190.
5.5	872.	2897.	0.8	0.3	0.9	250.
6.0	949.	2974.	-0.4	0.4	0.6	136.
6.5	1027.	3052.	-0.7	0.3	0.7	114.
7.0	1111.	3136.	-1.1	0.2	1.1	99.
7.5	1212.	3237.	0.8	1.4	1.6	211.
8.0	1299.	3324.	2.7	2.6	3.7	225.
8.5	1375.	3400.	3.3	0.4	3.3	263.
9.0	1451.	3476.	3.9	-1.0	4.0	284.
9.5	1527.	3552.	4.9	-0.9	5.0	281.
10.0	1603.	3628.	4.9	-0.8	5.0	280.
10.5	1680.	3705.	4.8	-0.6	4.9	277.
11.0	1756.	3781.	4.9	-0.7	5.0	278.
11.5	1832.	3857.	5.5	-0.8	5.6	278.
12.0	1908.	3933.	5.2	-1.1	5.4	282.
12.5	1984.	4009.	3.0	-1.4	3.3	295.
13.0	2061.	4086.	2.4	-1.4	2.8	300.
13.5	2137.	4162.	2.4	-1.0	2.6	293.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4109

DATE 02/10/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-11.36		0.0		1.0	180.
1.0	150	2175	-5.96	5.40	10.20	13.13	2.4	102.
2.0	300	2325	-0.33	5.63	10.05	12.97	1.6	74.
2.5	* 380	2405	1.60		2.83	5.76		
3.1	475.	2500.	1.60	1.36	3.57	6.49	6.8	347.
3.3	500	2525.	1.56	0.53	3.57	6.49	6.4	352.
4.0	* 609	2634	2.93		2.06	4.99		
6.4	975.	3000.	1.31	-0.24	-1.50	1.43	7.7	21.
12.8	1975.	4000.	-1.47	-2.79	-3.80	-0.87		
18.6	2975.	5000.	-9.37	-7.90	-5.25	-2.32		
24.0	3975.	6000.	-17.04	-7.67	-4.94	-2.01		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4109

DATE 02/10/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	-0.0	1.0	1.0	180.
0.5	76.	2101.	-1.8	0.8	1.9	113.
1.0	152.	2177.	-2.4	0.5	2.5	102.
1.5	229.	2254.	-0.9	0.5	1.0	119.
2.0	305.	2330.	-1.6	-0.5	1.7	71.
2.5	381.	2406.	-1.7	0.7	1.9	113.
3.0	457.	2482.	2.1	-6.7	7.0	343.
3.5	533.	2558.	0.1	-5.9	5.9	360.
4.0	610.	2635.	-2.6	-7.7	8.1	19.
4.5	686.	2711.	-2.8	-6.5	7.1	23.
5.0	762.	2787.	-3.0	-8.9	9.4	19.
5.5	838.	2863.	-2.8	-8.3	8.7	19.
6.0	914.	2939.	-2.7	-7.4	7.9	20.
6.5	993.	3018.	-2.8	-7.1	7.7	22.
7.0	1069.	3094.	-3.1	-7.1	7.7	24.
7.5	1145.	3170.	-3.8	-6.5	7.5	30.
8.0	1222.	3247.	-3.5	-5.6	6.6	32.
8.5	1298.	3323.	-2.6	-4.1	4.8	33.
9.0	1398.	3423.	-2.7	-4.8	5.5	29.
9.5	1474.	3499.	-2.6	-3.9	4.7	34.
10.0	1551.	3576.	-2.7	-2.9	3.9	43.
10.5	1627.	3652.	-2.6	-2.8	3.8	42.
11.0	1703.	3728.	-2.3	-2.8	3.6	39.
11.5	1779.	3804.	-2.3	-2.7	3.5	40.
12.0	1855.	3880.	-2.5	-3.5	4.3	35.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4124

DATE 02/10/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		10.16		0.0		5.1	360.
0.9	150	2175	9.15	-1.01	-3.29	-0.36	3.8	346.
1.8	300	2325	7.51	-1.63	-3.13	-0.20	4.2	338.
2.9	475.	2500.	6.05	-1.46	-1.85	1.08	4.5	342.
3.1	500	2525	6.05	-0.01	-2.23	0.70	4.7	344.
6.1	975.	3000.	1.79	-3.02	-3.56	-0.64	4.5	21.
12.5	1975.	4000.	0.16	-2.87	-2.08	0.85	3.0	11.
18.8	2975.	5000.	-7.70	-7.86	-3.67	-0.74		
24.8	3975.	6000.	-15.34	-7.64	-2.16	0.76		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4124

DATE 02/10/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	0.0	-5.1	5.1	360.
0.5	76.	2101.	1.5	-2.4	2.9	328.
1.0	158.	2183.	0.8	-3.8	3.9	348.
1.5	238.	2263.	1.4	-4.5	4.8	343.
2.0	327.	2352.	1.6	-3.6	4.0	336.
2.5	413.	2438.	2.0	-3.5	4.0	330.
3.0	490.	2515.	1.2	-4.5	4.6	345.
3.5	566.	2591.	1.7	-4.6	4.9	340.
4.0	642.	2667.	0.3	-3.2	3.2	354.
4.5	727.	2752.	-0.1	-3.9	3.9	1.
5.0	804.	2820.	-0.0	-3.9	3.9	0.
5.5	880.	2905.	-0.9	-3.9	4.0	13.
6.0	956.	2981.	-1.6	-3.9	4.3	22.
6.5	1044.	3060.	-1.4	-5.3	5.5	15.
7.0	1127.	3152.	-0.9	-7.3	7.4	7.
7.5	1204.	3220.	-1.1	-6.3	6.4	10.
8.0	1280.	3305.	-1.0	-4.5	4.6	13.
8.5	1356.	3381.	-0.7	-3.3	3.4	12.
9.0	1432.	3457.	-0.2	-4.4	4.4	3.
9.5	1508.	3533.	-0.4	-5.1	5.1	5.
10.0	1585.	3610.	0.5	-6.2	6.2	356.
10.5	1673.	3698.	0.9	-6.4	6.4	352.
11.0	1749.	3774.	0.7	-5.1	5.1	352.
11.5	1825.	3850.	1.1	-3.9	4.0	345.
12.0	1901.	3926.	1.2	-2.6	2.8	334.
12.5	1978.	4003.	-0.0	-3.0	3.0	0.
13.0	2054.	4079.	0.1	-1.6	1.6	357.
13.5	2130.	4155.	-0.3	-1.1	1.1	17.
14.0	2206.	4231.	-0.1	-1.8	1.8	3.
14.5	2282.	4307.	-0.1	-2.2	2.2	2.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4117

DATE 02/12/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-11.36		0.0		3.9	180.
0.5	* 76	2101	-11.55		4.47	7.40		
1.0	150	2175	-9.11	2.25	9.31	12.24	4.0	175.
2.0	300	2325	-3.73	5.38	7.48	10.41	3.9	195.
3.1	475.	2500.	0.16	2.80	3.98	6.91	3.6	223.
3.3	500.	2525.	0.10	1.03	3.98	6.91	3.4	224.
3.5	* 533	2558	0.16		3.98	6.91		
6.4	975.	3000.	-1.57	-1.66	-1.52	1.41	3.8	318.
13.0	1975.	4000.	-2.73	-1.17	-1.72	1.21	20.9	33.
19.5	2975.	5000.	-7.31	-4.58	-3.48	-0.55		
25.7	3975.	6000.	-14.04	-6.73	-2.95	-0.02		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4117

DATE 02/12/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	-0.0	3.9	3.9	180.
0.5	76.	2101.	-0.1	1.8	1.8	182.
1.0	152.	2177.	-0.3	4.0	4.0	175.
1.5	229.	2254.	0.4	4.2	4.2	186.
2.0	305.	2330.	1.1	3.8	3.9	196.
2.5	381.	2406.	2.5	2.9	3.9	221.
3.0	457.	2482.	2.5	2.8	3.7	222.
3.5	533.	2558.	2.2	2.1	3.0	226.
4.0	610.	2635.	2.3	0.2	2.3	265.
4.5	686.	2711.	2.8	0.0	2.8	270.
5.0	762.	2787.	2.4	-0.1	2.4	271.
5.5	838.	2863.	2.1	-0.9	2.3	294.
6.0	914.	2939.	2.0	-1.5	2.5	307.
6.5	991.	3016.	2.7	-3.2	4.2	320.
7.0	1067.	3092.	2.3	-4.2	4.8	331.
7.5	1143.	3168.	1.9	-6.2	6.5	343.
8.0	1219.	3244.	0.7	-9.1	9.1	356.
8.5	1295.	3320.	0.3	-9.1	9.1	358.
9.0	1372.	3397.	-0.2	-11.2	11.2	1.
9.5	1448.	3473.	-1.4	-11.3	11.4	7.
10.0	1524.	3549.	-1.6	-10.7	10.9	8.
10.5	1600.	3625.	-2.2	-14.5	14.7	9.
11.0	1676.	3701.	-2.4	-16.1	16.3	8.
11.5	1753.	3778.	-2.7	-17.1	17.3	9.
12.0	1829.	3854.	-4.2	-17.3	17.8	14.
12.5	1905.	3930.	-4.4	-17.1	17.7	14.
13.0	1981.	4006.	-12.1	-17.3	21.1	35.
13.5	2057.	4082.	2.4	-17.6	17.8	352.
14.0	2134.	4159.	-6.2	-18.2	19.2	19.
14.5	2210.	4235.	-6.6	-17.3	18.5	21.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4122

DATE 02/12/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		9.32		0.0		1.3	360.
0.9	150	2175	7.83	-1.50	-1.84	1.09	0.6	30.
1.9	300	2325	6.54	-1.29	-2.96	-0.03	1.2	44.
3.1	475.	2500.	4.73	-1.41	-2.79	0.14	2.2	64.
3.2	500	2525	4.76	-0.36	-2.79	0.14	2.6	62.
5.6	975.	3000.	-0.90	-4.87	-4.74	-1.81	6.8	100.
11.6	1975.	4000.	-5.55	-5.44	-3.27	-0.34	M	M

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4122

DATE 02/12/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	0.0	-1.3	1.3	360.
0.5	76.	2101.	-0.1	-0.2	0.2	23.
1.0	159.	2184.	-0.3	-0.5	0.6	30.
1.5	235.	2260.	-0.5	-0.7	0.9	37.
2.0	311.	2336.	-0.9	-0.9	1.3	45.
2.5	387.	2412.	-1.3	-1.0	1.6	52.
3.0	463.	2488.	-1.9	-0.9	2.1	65.
3.5	544.	2569.	-2.7	-1.7	3.2	59.
4.0	627.	2652.	-4.0	-2.2	4.6	60.
4.5	724.	2749.	-5.2	-1.2	5.3	77.
5.0	834.	2859.	-6.1	0.1	6.1	91.
5.5	946.	2971.	-6.3	1.0	6.4	99.
6.0	1068.	3093.	-8.0	2.0	8.2	104.
6.5	1179.	3204.	-7.0	2.6	7.5	110.
7.0	1264.	3289.	-8.5	4.4	9.5	117.
7.5	1340.	3365.	-6.4	3.2	7.1	117.
8.0	1416.	3441.	-8.8	6.2	10.8	125.
8.5	1495.	3520.	-7.4	6.0	9.5	129.
9.0	1572.	3597.	-10.0	8.8	13.4	131.
9.5	1649.	3674.	-10.0	10.1	14.2	136.
10.0	1731.	3756.	-10.5	7.7	13.0	126.
10.5	1807.	3832.	-8.8	12.7	15.4	145.
11.0	1883.	3908.	-8.8	11.1	14.2	142.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4111

DATE 02/14/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		4.26		0.0		1.3	135.
0.8	150	2175	1.88	-2.38	-0.75	2.18	1.9	134.
1.8	300	2325	2.47	0.58	-1.50	1.43	3.0	107.
2.9	475.	2500.	1.69	-0.77	-1.88	1.05	1.7	141.
3.1	500	2525	1.24	-0.46	-3.20	-0.28	1.7	126.
6.0	* 947	2972	-0.90		1.89	4.82		
6.2	975.	3000.	0.83	-0.99	4.16	7.08	10.5	331.
7.0	* 1100	3125	1.22		-3.59	-0.66		
10.4	1975.	4000.	-8.39	-8.63	-0.58	2.35	M	M
10.8	* 2028	4053	-8.59		1.74	4.67		
13.0	* 2371	4396	-3.41		1.15	4.07		
17.0	2975.	5000.	-5.75	2.64	-2.50	0.43		
23.5	3975.	6000.	-12.45	-6.70	-1.96	0.97		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4111

DATE 02/14/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	-0.9	0.9	1.3	135.
0.5	76.	2101.	-0.2	1.4	1.4	173.
1.0	183.	2208.	-1.9	0.9	2.2	116.
1.5	259.	2284.	-3.3	0.7	3.4	102.
2.0	335.	2360.	-2.5	1.0	2.7	111.
2.5	412.	2437.	-1.3	1.2	1.8	133.
3.0	488.	2513.	-1.0	1.4	1.7	143.
3.5	564.	2589.	-1.1	1.3	1.7	39.
4.0	643.	2668.	-0.8	4.6	4.7	10.
4.5	719.	2744.	1.2	4.0	4.1	344.
5.0	795.	2820.	2.9	7.8	8.3	340.
5.5	871.	2896.	3.9	8.9	9.7	336.
6.0	948.	2973.	4.9	9.3	10.5	332.
6.5	1024.	3049.	5.5	8.9	10.5	328.
7.0	1100.	3125.	5.7	9.3	10.9	329.
7.5	1220.	3245.	6.9	10.2	12.3	326.
8.0	1403.	3428.	10.2	13.8	17.2	324.
8.5	1524.	3549.	12.3	12.4	17.4	315.
9.0	1646.	3671.	10.5	9.9	14.4	313.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4104

DATE 02/14/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		6.62		0.0		7.7	360.
0.8	150	2175	4.01	-2.61	-4.85	-1.92	4.1	10.
1.4	300	2325	2.62	-1.39	-4.87	-1.94	4.0	278.
2.1	475.	2500.	0.83	-1.49	-5.10	-2.17	5.4	351.
2.3	500.	2525	0.86	-0.27	-5.10	-2.17	5.5	349.
4.5	975.	3000.	-5.06	-5.38	-5.37	-2.44	7.0	318.
7.8	*1718	3743	-10.37		1.94	4.87		
9.4	1975.	4000.	-8.49	-3.97	0.77	3.70	M	M
10.8	*2175	4200	-7.31		0.58	3.51		
15.3	2975.	5000.	-12.74	-4.24	-2.54	0.39		
21.0	3975.	6000.	-19.66	-6.93	-0.20	2.73		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4104

DATE 02/14/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	0.0	-7.7	7.7	360.
0.5	76.	2101.	-0.4	-2.6	2.6	9.
1.0	204.	2220.	-0.9	-5.0	5.1	11.
1.5	329.	2354.	0.0	-3.7	3.7	359.
2.0	446.	2471.	0.6	-5.3	5.3	353.
2.5	544.	2569.	1.4	-5.5	5.6	346.
3.0	671.	2696.	2.5	-5.4	5.9	335.
3.5	770.	2795.	2.5	-4.3	5.0	330.
4.0	852.	2877.	3.0	-3.1	4.3	317.
4.5	973.	2998.	4.6	-5.2	7.0	318.
5.0	1082.	3107.	5.6	-6.0	8.2	317.
5.5	1209.	3234.	5.7	-7.6	9.5	323.
6.0	1339.	3364.	5.9	-7.9	9.8	323.
6.5	1471.	3496.	7.9	-9.4	12.3	320.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4115

DATE 02/16/77 TIME 08:25MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-4.97		0.0		0.5	135.
1.0	150	2175	-1.87	3.10	4.00	6.92	3.0	134.
2.0	300	2325	0.81	2.68	5.85	8.78	4.1	128.
2.5	* 380	2405	1.79		2.26	5.19		
3.1	475.	2500.	1.98	1.17	-0.38	2.55	2.8	95.
3.3	500.	2525.	1.98	0.0	-0.38	2.55	2.7	79.
6.3	975.	3000.	-1.38	-3.35	-2.09	0.84	10.3	330.
12.9	1975.	4000.	-5.06	-3.69	-0.77	2.16		
19.4	2975.	5000.	-10.96	-5.90	-1.37	1.56		
26.0	3975.	6000.	-14.34	-3.38	-1.77	1.16		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 4115

DATE 02/16/77 TIME 08:25MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	-0.4	0.4	0.5	135.
0.5	76.	2101.	-1.3	1.7	2.1	142.
1.0	152.	2177.	-2.2	2.1	3.0	134.
1.5	229.	2254.	-2.4	1.9	3.1	128.
2.0	305.	2330.	-3.3	2.6	4.2	128.
2.5	381.	2406.	-4.5	2.5	5.2	119.
3.0	457.	2482.	-2.7	0.8	2.9	106.
3.5	533.	2558.	-2.1	-1.3	2.5	58.
4.0	610.	2635.	-1.5	-2.7	3.1	29.
4.5	686.	2711.	-0.7	-4.1	4.2	10.
5.0	762.	2787.	-4.3	-0.2	4.3	88.
5.5	838.	2863.	2.1	-5.9	6.3	341.
6.0	925.	2950.	4.1	-7.9	8.9	333.
6.5	1004.	3020.	5.8	-9.4	11.1	328.
7.0	1080.	3105.	4.8	-7.8	9.2	329.
7.5	1156.	3181.	4.1	-7.2	8.3	330.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3784

DATE 02/16/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		6.15		0.0		1.3	225.
0.9	150	2175	5.19	-0.96	-4.09	-1.16	0.6	216.
1.6	300	2325	3.75	-1.44	-5.06	-2.13	0.8	256.
2.2	475.	2500.	1.50	-2.11	-3.20	-0.27	1.6	231.
2.3	500	2525.	1.59	-0.04	-3.20	-0.27	1.8	229.
4.9	975.	3000.	-2.92	-4.50	-1.90	1.02	3.6	231.
11.3	1975.	4000.	-7.61	-4.69	-3.28	-0.35	10.4	296.
17.8	2975.	5000.	-11.84	-4.24	-5.08	-2.15		
23.6	3975.	6000.	-16.84	-5.01	-0.79	2.14		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3784

DATE 02/16/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	0.9	0.9	1.3	225.
0.5	76.	2101.	0.5	1.1	1.2	203.
1.0	159.	2184.	0.3	0.4	0.6	218.
1.5	279.	2304.	0.8	0.1	0.8	260.
2.0	410.	2435.	0.8	0.5	0.9	237.
2.5	553.	2578.	1.6	1.6	2.3	224.
3.0	651.	2676.	0.4	1.8	1.8	192.
3.5	729.	2754.	1.2	1.1	1.6	227.
4.0	806.	2831.	1.0	1.1	1.5	224.
4.5	905.	2930.	2.0	2.2	3.0	222.
5.0	1001.	3026.	3.1	2.2	3.8	234.
5.5	1077.	3102.	4.6	2.8	5.4	239.
6.0	1154.	3179.	6.5	3.8	7.5	240.
6.5	1230.	3255.	7.9	4.5	9.1	241.
7.0	1306.	3331.	8.9	3.6	9.6	248.
7.5	1382.	3407.	10.6	2.5	10.9	257.
8.0	1458.	3483.	10.4	0.8	10.4	266.
8.5	1535.	3560.	10.8	1.2	10.9	277.
9.0	1611.	3636.	10.1	2.7	10.5	285.
9.5	1687.	3712.	9.1	4.2	10.1	295.
10.0	1763.	3788.	8.3	3.6	9.0	293.
10.5	1839.	3864.	8.5	3.6	9.2	293.
11.0	1916.	3941.	8.3	4.2	9.3	297.
11.5	2004.	4029.	9.8	4.8	10.9	296.
12.0	2084.	4109.	8.5	5.5	10.1	303.
12.5	2160.	4185.	11.5	8.4	14.2	306.
13.0	2236.	4261.	12.1	8.1	14.6	304.
13.5	2312.	4337.	14.5	9.4	17.3	303.
14.0	2388.	4413.	15.2	8.6	17.5	300.
14.5	2465.	4490.	14.8	8.2	16.9	299.
15.0	2541.	4566.	17.1	10.0	19.8	300.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3786

DATE 02/18/77 TIME 08:10MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-3.02		0.0		5.1	180.
1.0	150	2175	1.10	4.12	10.17	13.10	3.5	99.
1.8	* 266	2291	3.88		2.06	4.99		
2.0	300	2325	3.88	2.79	-0.56	2.37	3.2	218.
3.1	475.	2500.	3.50	-0.21	-1.50	1.43	5.0	254.
3.3	500	2525.	3.51	-0.16	-1.50	1.43	4.6	253.
6.4	975.	3000.	1.79	-1.73	-2.07	0.86	4.9	297.
11.6	1975.	4000.	-7.02	-8.99	-3.87	-0.94	5.8	281.
17.4	2975.	5000.	-13.95	-6.74	1.38	4.30		
23.5	3975.	6000.	-18.45	-4.51	0.20	3.13		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3786

DATE 02/18/77 TIME 08:10MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	-0.0	5.1	5.1	180.
0.5	76.	2101.	-2.7	1.0	2.9	110.
1.0	152.	2177.	-3.5	0.5	3.5	98.
1.5	229.	2254.	-1.4	2.3	2.6	149.
2.0	305.	2330.	2.2	2.4	3.2	222.
2.5	381.	2406.	4.0	1.5	4.3	250.
3.0	457.	2482.	5.0	1.5	5.3	254.
3.5	533.	2558.	4.0	1.2	4.1	253.
4.0	610.	2635.	3.2	0.3	3.2	264.
4.5	686.	2711.	3.3	-0.6	3.4	280.
5.0	762.	2787.	3.9	-1.4	4.2	289.
5.5	838.	2863.	4.1	-2.1	4.6	297.
6.0	914.	2939.	4.0	-1.9	4.4	296.
6.5	995.	3020.	4.4	-2.3	5.0	298.
7.0	1072.	3097.	4.7	-2.8	5.5	301.
7.5	1158.	3183.	5.3	-3.4	6.3	303.
8.0	1251.	3276.	6.5	-4.5	7.9	305.
8.5	1327.	3352.	6.2	-4.8	7.9	308.
9.0	1403.	3428.	6.7	-3.4	7.5	297.
9.5	1480.	3505.	6.8	-4.1	7.9	301.
10.0	1556.	3581.	5.1	-3.2	6.0	302.
10.5	1667.	3692.	5.2	-2.7	5.4	295.
11.0	1838.	3863.	6.4	-2.7	5.8	288.
11.5	1965.	3990.	5.8	-1.3	6.0	283.
12.0	2044.	4069.	4.1	-0.1	4.1	271.
12.5	2143.	4168.	4.7	0.0	4.7	270.
13.0	2232.	4257.	6.2	-0.5	6.3	275.
13.5	2309.	4334.	7.0	-2.5	7.4	290.
14.0	2411.	4436.	9.7	-1.3	9.8	277.
14.5	2507.	4532.	10.2	-6.7	12.2	304.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3785

DATE 02/18/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		12.00		0.0		7.7	360.
0.8	150	2175	9.31	-2.69	-4.58	-1.65	3.3	334.
1.4	300	2325	7.76	-1.55	-1.10	-1.83	3.8	311.
2.5	475.	2500.	6.34	-1.41	-4.06	-1.13	4.1	296.
2.6	500	2525	5.98	-0.37	-1.30	-1.63	4.2	293.
5.6	975.	3000.	1.98	-3.70	-3.38	-0.45	5.4	272.
11.6	1975.	4000.	-7.41	-7.39	-8.27	-5.34	9.3	259.
15.9	2975.	5000.	-13.54	-8.44	-1.37	1.55		
22.0	3975.	6000.	-19.87	-6.32	3.58	6.50		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3785

DATE 02/18/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	0.0	-7.7	7.7	360.
0.5	76.	2101.	1.0	-2.4	2.6	336.
1.0	220.	2245.	1.8	-3.5	4.0	333.
1.5	316.	2341.	3.0	-2.3	3.8	307.
2.0	392.	2417.	3.1	-1.7	3.5	299.
2.5	482.	2507.	3.7	-1.8	4.1	296.
3.0	576.	2601.	4.4	-1.0	4.5	282.
3.5	652.	2677.	4.7	-0.1	4.7	271.
4.0	728.	2753.	5.0	-0.2	5.0	272.
4.5	806.	2831.	5.4	-0.1	5.4	269.
5.0	887.	2912.	5.5	-0.2	5.5	272.
5.5	963.	2988.	5.6	-0.3	5.6	273.
6.0	1040.	3065.	4.6	0.3	4.6	266.
6.5	1121.	3146.	4.8	0.1	4.9	268.
7.0	1197.	3222.	4.7	0.0	4.7	270.
7.5	1280.	3305.	5.5	0.6	5.6	264.
8.0	1389.	3414.	6.9	0.3	6.9	268.
8.5	1465.	3490.	6.4	0.9	6.5	262.
9.0	1541.	3566.	6.1	1.4	6.3	257.
9.5	1618.	3643.	6.1	1.8	6.3	254.
10.0	1694.	3719.	5.8	2.1	6.2	250.
10.5	1770.	3795.	5.6	2.6	6.1	245.
11.0	1846.	3871.	6.4	2.2	6.8	251.
11.5	1931.	3956.	7.1	1.5	7.3	258.
12.0	2152.	4177.	17.2	1.5	17.3	289.
12.5	2324.	4340.	16.3	2.3	16.5	262.
13.0	2417.	4442.	11.9	1.8	12.0	262.
13.5	2497.	4522.	12.6	1.1	12.6	265.
14.0	2573.	4598.	11.6	1.8	11.8	261.
14.5	2663.	4688.	12.5	1.7	12.6	263.
15.0	2774.	4790.	13.9	1.5	14.0	264.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3791

DATE 02/21/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		2.74		0.0		1.0	135.
0.3	* 38	2063	5.11		0.0			
1.0	150	2175	8.18	5.44	5.17	8.09	2.1	85.
1.0	* 152	2177	8.21		5.17	8.09		
2.0	300	2325	7.48	-0.70	-3.68	-0.76	3.3	191.
2.9	475.	2500.	5.68	-1.79	-1.48	1.45	4.7	210.
3.0	500	2525.	5.59	-0.10	0.37	3.30	5.1	217.
6.2	975.	3000.	5.11	-0.48	-0.56	2.37	7.7	253.
12.5	1975.	4000.	-0.41	-5.52	-2.27	0.66	13.4	260.
19.0	2975.	5000.	-6.72	-6.31	-2.89	0.04		
24.4	3975.	6000.	-13.84	-7.12	-0.39	2.54		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3791

DATE 02/21/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	-0.7	0.7	1.0	135.
0.5	76.	2101.	-2.6	0.6	2.7	102.
1.0	152.	2177.	-2.1	-0.2	2.1	85.
1.5	229.	2254.	-1.2	1.8	2.2	148.
2.0	306.	2331.	0.9	3.3	3.4	195.
2.5	412.	2437.	0.6	4.0	4.0	189.
3.0	494.	2519.	2.9	4.0	4.9	216.
3.5	571.	2596.	5.5	5.9	8.0	223.
4.0	647.	2672.	7.0	4.1	8.1	240.
4.5	723.	2748.	6.6	2.5	7.1	249.
5.0	799.	2824.	7.1	2.0	7.3	254.
5.5	875.	2900.	8.0	1.8	8.2	257.
6.0	952.	2977.	7.3	2.1	7.6	254.
6.5	1028.	3053.	7.3	2.8	7.8	249.
7.0	1104.	3129.	6.8	2.4	7.2	250.
7.5	1180.	3205.	6.8	2.2	7.1	252.
8.0	1256.	3281.	6.5	2.1	6.9	252.
8.5	1335.	3360.	6.2	2.0	6.5	252.
9.0	1446.	3471.	8.4	2.9	8.9	251.
9.5	1523.	3548.	6.7	1.7	6.9	255.
10.0	1599.	3624.	7.4	1.8	7.6	256.
10.5	1675.	3700.	7.0	1.4	8.1	260.
11.0	1751.	3776.	9.8	2.1	10.0	258.
11.5	1827.	3852.	11.2	2.1	11.4	260.
12.0	1904.	3929.	12.6	2.7	12.9	258.
12.5	1980.	4005.	13.2	2.2	13.4	261.
13.0	2056.	4081.	12.4	2.5	12.6	259.
13.5	2132.	4157.	11.8	3.5	12.3	254.
14.0	2209.	4234.	10.5	2.9	10.9	255.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3787

DATE 02/21/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		15.47		0.0		0.1	180.
0.9	150	2175	13.34	-2.12	-2.51	0.41	11.0	202.
1.8	300	2325	11.95	-1.40	-4.71	-1.78	7.7	207.
2.6	475	2500.	9.51	-2.19	-3.47	-0.54	12.1	221.
2.7	500	2525	9.53	-0.22	-3.47	-0.54	12.5	222.
5.1	975	3000.	4.54	-4.59	-3.91	-0.98	12.1	228.
10.3	1975	4000.	-4.67	-9.61	-1.53	1.40	19.5	242.
13.8	*2503	4528	-7.02		3.66	6.58		
14.5	*2617	4642	-4.77		0.58	3.50		
16.8	2975	5000.	-5.75	-1.08	-1.54	1.39		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3787

DATE 02/21/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	-0.0	0.1	0.1	180.
0.5	76.	2101.	0.7	7.3	7.3	185.
1.0	172.	2197.	5.4	10.8	12.1	207.
1.5	248.	2273.	3.5	8.1	8.8	203.
2.0	332.	2357.	3.5	6.1	7.1	210.
2.5	456.	2481.	7.5	9.1	11.8	220.
3.0	567.	2592.	9.0	9.4	13.6	226.
3.5	649.	2674.	8.0	8.1	12.0	228.
4.0	740.	2765.	9.6	9.2	13.3	226.
4.5	841.	2866.	9.3	8.8	12.8	226.
5.0	953.	2978.	8.6	7.9	11.7	227.
5.5	1066.	3091.	10.7	8.8	13.9	231.
6.0	1163.	3188.	10.5	7.9	13.1	233.
6.5	1263.	3288.	10.3	7.6	12.8	234.
7.0	1351.	3376.	0.6	6.5	11.6	236.
7.5	1437.	3462.	10.6	7.0	12.7	237.
8.0	1552.	3577.	12.9	8.2	15.3	238.
8.5	1656.	3681.	12.9	8.4	15.3	237.
9.0	1750.	3775.	13.7	8.5	16.1	238.
9.5	1849.	3870.	15.8	8.1	17.7	243.
10.0	1928.	3953.	19.0	9.8	21.4	243.
10.5	2004.	4029.	16.1	8.8	18.4	241.
11.0	2080.	4105.	18.7	10.9	21.7	240.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3790

DATE 02/22/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-1.57		0.0		2.6	315.
1.0	150	2175	-3.20	-1.63	-2.86	0.06	M	M
1.8	300	2325	-5.09	-1.89	-4.22	-1.29	M	M
2.8	475.	2500.	-6.70	-1.61	-2.51	0.42	M	M
2.9	500	2525	-6.72	-0.02	-2.51	0.42	M	M
5.8	975.	3000.	-11.54	-4.82	-2.93	0.00	M	M
12.3	1975.	4000.	-17.44	-5.91	-1.58	1.35		
18.8	2975.	5000.	-21.48	-4.03	-3.59	-0.66		
24.3	3975.	6000.	-29.23	-7.75	-2.02	0.91		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3790

DATE 02/22/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	1.8	-1.8	2.6	315.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3778

DATE 02/22/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.8	SFC	-	4.45	-	0.0	-	2.6	270.
1.7	150	2175	1.89	-2.56	-3.01	-0.08	M	M
2.7	300	2325	0.84	-1.05	-3.21	-0.28	M	M
3.6	450	2500.	-1.35	-2.19	-2.27	0.66	M	M
4.5	600	2525	-1.74	-0.39	-1.90	1.03	M	M
5.4	750	3000.	-4.76	-3.01	-3.26	-0.33	M	M
6.3	900	4000.	-12.05	-7.29	-2.54	0.38	M	M
7.2	1050	5000.	-17.05	-5.00	1.38	4.31		
8.1	1200	6000.	-25.44	-8.40	-3.01	-0.08		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3778

DATE 02/22/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	2.6	0.0	2.6	270.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3776

DATE 02/24/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-1.67		0.0		7.7	270.
1.0	150	2175	-3.01	-1.35	-2.86	0.07	4.8	256.
1.9	300	2325	-4.82	-1.81	-3.83	-0.91	8.5	264.
2.9	475	2500.	-6.43	-1.59	-3.28	-0.35	12.0	263.
3.0	500	2525	-6.89	-0.48	-3.28	-0.35	12.3	264.
5.8	975	3000.	-11.65	-4.75	-3.90	-0.98	13.2	269.
11.9	1975.	4000.	-18.85	-7.22	-3.17	-0.25	M	M
18.1	2975.	5000.	-27.18	-8.33	-2.61	0.31		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3776

DATE 02/24/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	7.7	0.0	7.7	270.
0.5	76.	2101.	3.1	1.3	3.4	248.
1.0	152.	2177.	4.7	1.1	4.0	257.
1.5	229.	2254.	7.7	0.6	7.7	266.
2.0	322.	2347.	8.7	0.9	8.8	264.
2.5	414.	2430.	10.9	1.9	11.1	260.
3.0	495.	2520.	12.2	1.3	12.3	264.
3.5	578.	2603.	11.3	1.3	11.4	264.
4.0	658.	2683.	10.6	1.3	10.7	263.
4.5	749.	2774.	12.6	1.5	12.7	263.
5.0	842.	2867.	14.0	0.7	14.0	267.
5.5	926.	2951.	13.2	0.5	13.3	268.
6.0	1016.	3041.	13.1	-0.0	13.1	270.
6.5	1110.	3135.	13.4	-0.6	13.4	272.
7.0	1188.	3213.	12.8	-1.2	12.8	276.
7.5	1264.	3280.	13.1	-1.6	13.2	277.
8.0	1342.	3367.	12.5	-0.8	12.6	274.
8.5	1418.	3443.	11.3	-0.4	11.3	272.
9.0	1494.	3510.	12.8	0.0	12.9	266.
9.5	1577.	3602.	14.1	1.0	14.2	266.
10.0	1670.	3695.	14.2	1.0	14.2	266.
10.5	1756.	3781.	13.4	0.6	13.5	267.
11.0	1832.	3857.	10.4	0.9	10.4	265.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3777

DATE 02/24/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		5.39		0.0		10.3	270.
1.0	150	2175	6.71	1.31	-1.67	1.26	4.9	242.
1.9	300	2325	4.93	-1.78	-1.86	1.07	7.6	248.
3.0	475	2500	2.84	-1.40	-2.62	0.31	8.7	249.
3.2	500	2525	2.90	-0.63	-2.62	0.31	9.5	247.
6.1	975	3000	-0.80	-2.58	-3.97	-1.04	11.8	239.
11.9	1975	4000	-11.76	-2.08	-5.14	-2.21	M	M
16.1	2975	5000	-11.64	-9.89	-2.73	0.20		
21.1	3975	6000	-17.95	-6.30	-3.96	-1.03		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3777

DATE 02/24/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WND SPEED M/S	WND DIR DEG
0.0	0.	2025.	10.3	0.0	10.3	270.
0.5	76.	2101.	2.2	1.4	2.6	238.
1.0	152.	2177.	4.4	2.3	5.0	242.
1.5	229.	2254.	5.8	2.4	6.2	247.
2.0	316.	2341.	7.3	3.0	7.9	248.
2.5	392.	2417.	7.1	3.7	8.0	243.
3.0	468.	2493.	7.9	2.9	8.5	250.
3.5	553.	2578.	10.1	5.1	11.3	243.
4.0	630.	2655.	9.0	4.9	10.3	242.
4.5	706.	2731.	8.3	3.8	9.1	245.
5.0	782.	2807.	7.5	3.4	8.3	246.
5.5	858.	2883.	7.3	4.3	8.5	240.
6.0	958.	2983.	9.5	5.8	11.1	239.
6.5	1119.	3144.	15.0	9.0	17.6	239.
7.0	1207.	3232.	9.0	3.9	9.8	247.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3781

DATE 02/26/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		-11.06		0.0		M	M
1.0	150	2175	-8.70	2.36	3.49	6.42	4.6	95.
1.8	★ 266	2291	-7.31		1.16	4.09		
2.0	300	2325	-7.41	1.29	0.19	3.12	5.3	142.
3.1	475.	2500.	-8.10	-0.38	-2.32	0.61	4.6	145.
3.3	500	2525	-8.08	-0.29	-2.32	0.61	4.3	149.
6.2	975.	3000.	-12.05	-3.57	-1.37	1.56	4.1	202.
12.7	1975.	4000.	-17.55	-5.70	-1.98	0.95	9.7	263.
19.2	2975.	5000.	-20.57	-3.23	-1.59	1.34		
25.7	3975.	6000.	-27.08	-6.51	-3.63	-0.70		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3781

DATE 02/26/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
THE WIND DATA ARE MISSING						
0.5	76.	2101.	-4.9	1.8	5.2	110.
1.0	152.	2177.	-4.6	0.3	4.6	94.
1.5	229.	2254.	-2.2	2.1	3.0	134.
2.0	305.	2330.	-3.3	4.4	5.5	143.
2.5	381.	2406.	-3.1	4.7	5.7	147.
3.0	457.	2482.	-3.0	3.9	4.9	142.
3.5	533.	2558.	-1.7	3.4	3.8	154.
4.0	610.	2635.	-0.2	3.7	3.7	176.
4.5	686.	2711.	1.2	4.1	4.3	196.
5.0	762.	2787.	2.2	4.0	4.5	209.
5.5	838.	2863.	2.2	3.7	4.3	210.
6.0	914.	2939.	1.6	4.1	4.4	202.
6.5	1025.	3050.	1.4	3.4	3.7	202.
7.0	1101.	3126.	0.9	1.8	2.0	205.
7.5	1177.	3202.	1.2	1.0	1.6	229.
8.0	1253.	3278.	1.3	1.5	2.0	222.
8.5	1329.	3354.	1.9	0.5	1.9	255.
9.0	1406.	3431.	3.1	1.1	3.3	250.
9.5	1482.	3507.	5.5	2.5	6.0	246.
10.0	1558.	3583.	6.6	4.0	7.7	239.
10.5	1634.	3659.	7.0	4.7	9.2	239.
11.0	1710.	3735.	9.0	3.2	9.5	250.
11.5	1787.	3812.	8.6	2.2	8.9	256.
12.0	1863.	3888.	8.8	2.0	9.1	257.
12.5	1939.	3964.	9.3	1.2	9.4	263.
13.0	2015.	4040.	9.9	1.3	10.0	262.
13.5	2091.	4116.	10.9	-0.1	10.9	270.
14.0	2168.	4193.	11.1	-0.3	11.1	271.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3783

DATE 02/26/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		3.60		0.0		M	M
0.8	150	2175	1.04	-2.56	-3.60	-0.67	M	M
1.6	300	2325	-0.22	-1.25	-4.19	-1.26	M	M
2.4	475	2500	-1.96	-1.75	-4.78	-1.86	M	M
2.5	500	2525	-1.99	-0.02	-4.78	-1.86	M	M
4.3	975	3000	-7.81	-5.82	-6.99	-4.06	M	M
8.4	1975	4000	-16.85	-9.05	-2.97	-0.05	M	M
13.7	2975	5000	-25.38	-8.53	-3.62	-0.70		
19.9	3975	6000	-32.99	-7.61	-3.05	-0.12		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3783

DATE 02/26/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
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THE WIND DATA ARE MISSING



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3782

DATE 02/28/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
0.5	SFC		-2.92		0.0		2.6	135.
1.0	* 76	2101	-3.21		0.95	3.88		
1.5		2175	-2.45	0.47	2.86	5.78	2.4	102.
2.0	* 266	2291	-1.28		0.19	3.12		
2.5		2325	-2.14	0.31	-0.76	2.17	3.8	188.
3.0	475.	2500.	-3.31	-0.99	-0.19	2.74	2.1	199.
3.5	500.	2525.	-3.30	-0.17	-0.19	2.74	2.3	211.
4.0	975.	3000.	-7.61	-4.29	0.19	3.12	2.3	294.
12.3	1975.	4000.	-11.55	-3.97	-1.95	0.98		
18.8	2975.	5000.	-16.43	-4.88	-0.79	2.14		
24.1	3975.	6000.	-24.73	-8.29	-2.01	0.92		

COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3782

DATE 02/28/77 TIME 08:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	-1.8	1.8	2.6	135.
0.5	76.	2101.	-1.7	0.5	1.8	105.
1.0	152.	2177.	-2.4	0.5	2.4	101.
1.5	229.	2254.	-0.6	2.9	2.9	168.
2.0	305.	2330.	0.6	3.8	3.9	189.
2.5	381.	2406.	0.8	2.6	2.7	196.
3.0	457.	2482.	0.3	1.9	2.0	190.
3.5	533.	2558.	1.9	1.7	2.6	227.
4.0	613.	2638.	3.1	2.1	3.8	236.
4.5	689.	2714.	4.5	1.6	4.7	251.
5.0	768.	2793.	3.0	0.2	3.0	266.
5.5	903.	2928.	2.4	0.2	2.4	266.
6.0	1008.	3033.	1.8	-1.4	2.3	307.
6.5	1084.	3109.	2.9	-1.3	3.2	294.
7.0	1160.	3185.	2.6	-3.6	4.4	325.



COL CB TRACT

ELEV 2025 METERS

SOUNDING ID 3780

DATE 02/28/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	TEMP DEG C	D/T STD	D/T 300M	D/T LAPSE	WS M/S	WD DEG
	SFC		8.49		0.0		5.1	180.
1.0	150	2175	7.37	-1.12	-3.51	-0.58	6.9	195.
1.8	300	2325	5.58	-1.79	-1.86	1.07	5.2	191.
2.7	475.	2500.	3.03	-1.89	-5.98	-3.06	3.5	192.
2.8	500	2525.	3.07	-0.62	-5.98	-3.06	3.8	191.
5.0	975.	3000.	-2.15	-4.62	-4.76	-1.83	3.8	185.
8.0	*1794	3819	-8.89		5.60	8.53		
9.2	1975.	4000.	-5.55	-3.62	-1.54	1.39	6.7	268.
15.3	2975.	5000.	-12.04	-6.88	-2.93	-0.00		
21.5	3975.	6000.	-18.55	-6.51	-1.98	0.95		

COL CB TRACT

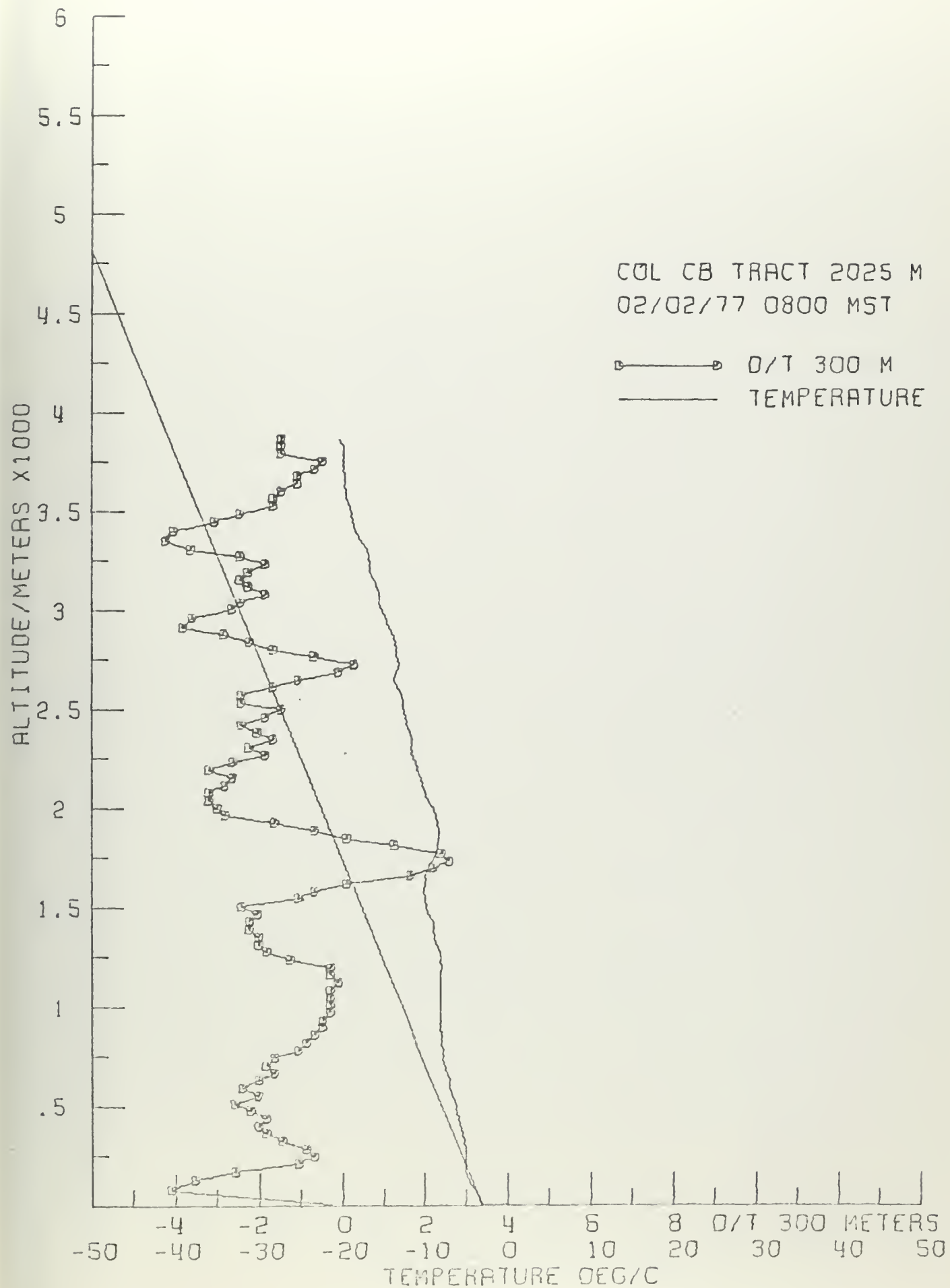
ELEV 2025 METERS

SOUNDING ID 3780

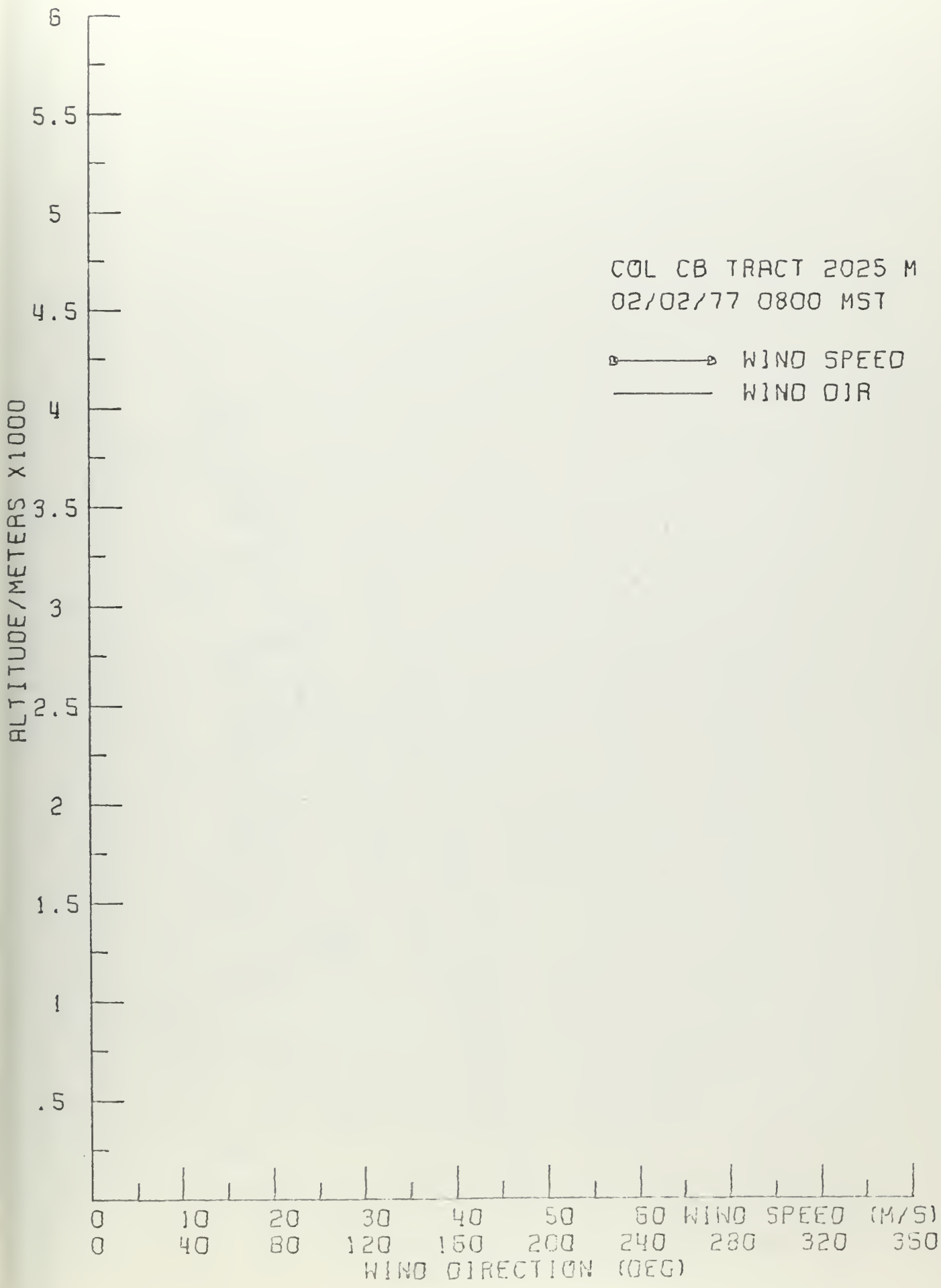
DATE 02/28/77 TIME 14:00MST ASCENT RATE 500 FPM DATA INTERVAL 15 SEC.

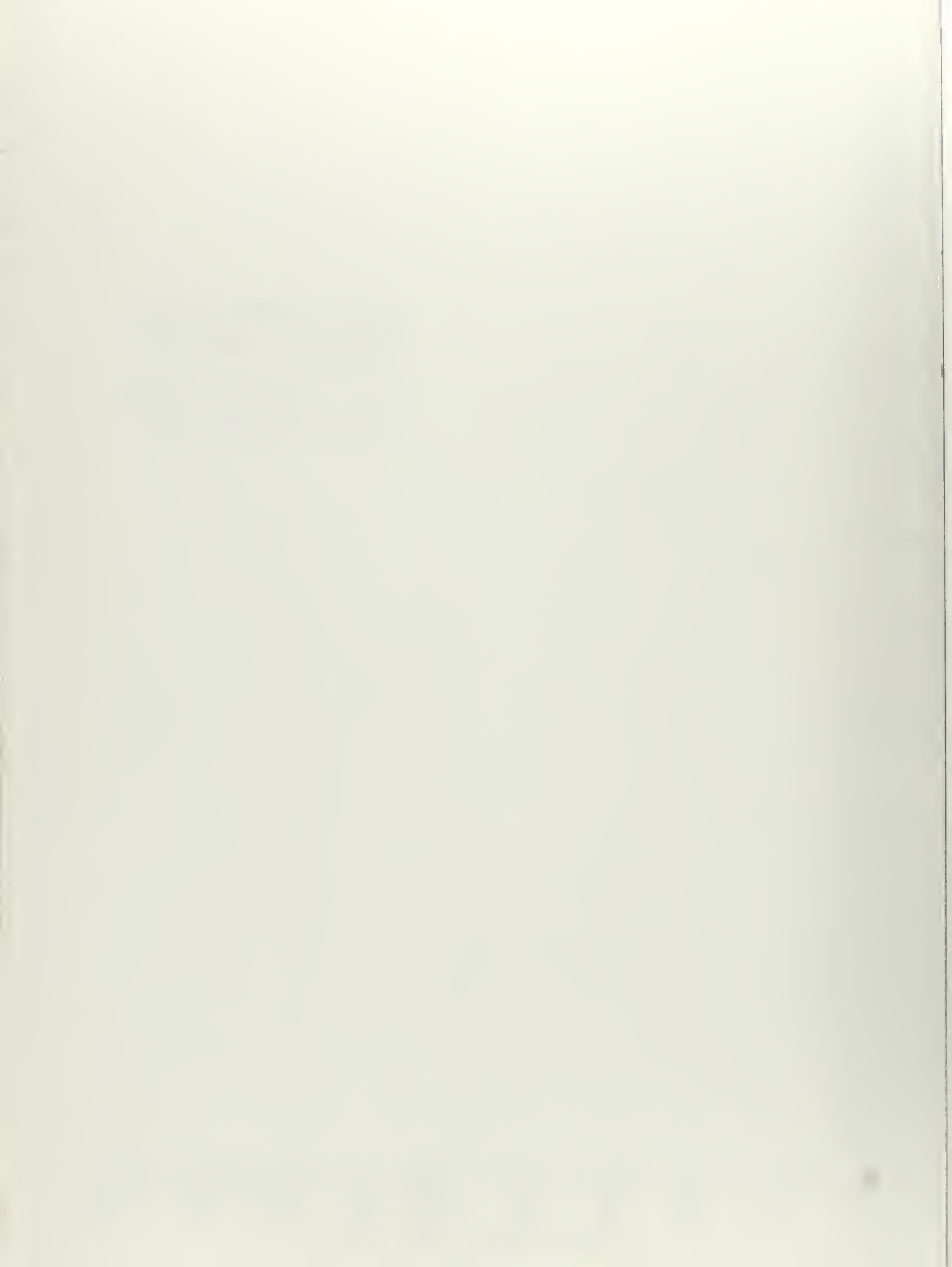
TIME MIN	HEIGHT M (AGL)	HEIGHT M (MSL)	U-COMP M/S	V-COMP M/S	WIND SPEED M/S	WIND DIR DEG
0.0	0.	2025.	-0.0	5.1	5.1	180.
0.5	76.	2101.	1.8	5.7	6.0	198.
1.0	152.	2177.	1.7	6.7	6.9	195.
1.5	244.	2269.	1.1	5.1	5.2	192.
2.0	340.	2365.	0.9	5.2	5.3	190.
2.5	426.	2451.	0.6	2.8	2.9	193.
3.0	537.	2562.	0.8	4.2	4.3	191.
3.5	680.	2705.	0.9	6.0	6.0	189.
4.0	785.	2810.	-0.4	4.0	4.1	174.
4.5	881.	2906.	-0.4	3.9	3.9	175.
5.0	974.	2999.	0.4	3.8	3.8	186.
5.5	1068.	3093.	-0.4	3.0	3.0	172.
6.0	1189.	3214.	-0.5	3.6	3.6	171.
6.5	1350.	3375.	2.0	3.2	3.8	212.
7.0	1560.	3585.	3.3	7.3	8.0	204.
7.5	1714.	3739.	3.3	5.7	6.6	210.
8.0	1794.	3819.	3.6	2.6	4.4	235.
8.5	1870.	3895.	6.4	0.2	6.4	268.
9.0	1946.	3971.	6.9	0.7	6.9	264.
9.5	2023.	4048.	6.3	-0.5	6.4	275.
10.0	2099.	4124.	4.3	-0.6	4.4	278.
10.5	2175.	4200.	3.3	-1.9	3.8	300.
11.0	2251.	4276.	4.0	-0.7	4.1	279.
11.5	2327.	4352.	6.9	-0.1	6.9	270.
12.0	2404.	4429.	8.8	0.2	8.8	269.
12.5	2480.	4505.	8.8	-0.5	8.8	273.
13.0	2578.	4603.	9.4	-0.0	9.4	270.
13.5	2691.	4716.	10.9	-0.2	10.9	271.
14.0	2771.	4796.	10.6	-0.6	10.6	274.
14.5	2847.	4872.	10.2	0.2	10.2	269.
15.0	2927.	4952.	10.9	1.2	11.0	264.

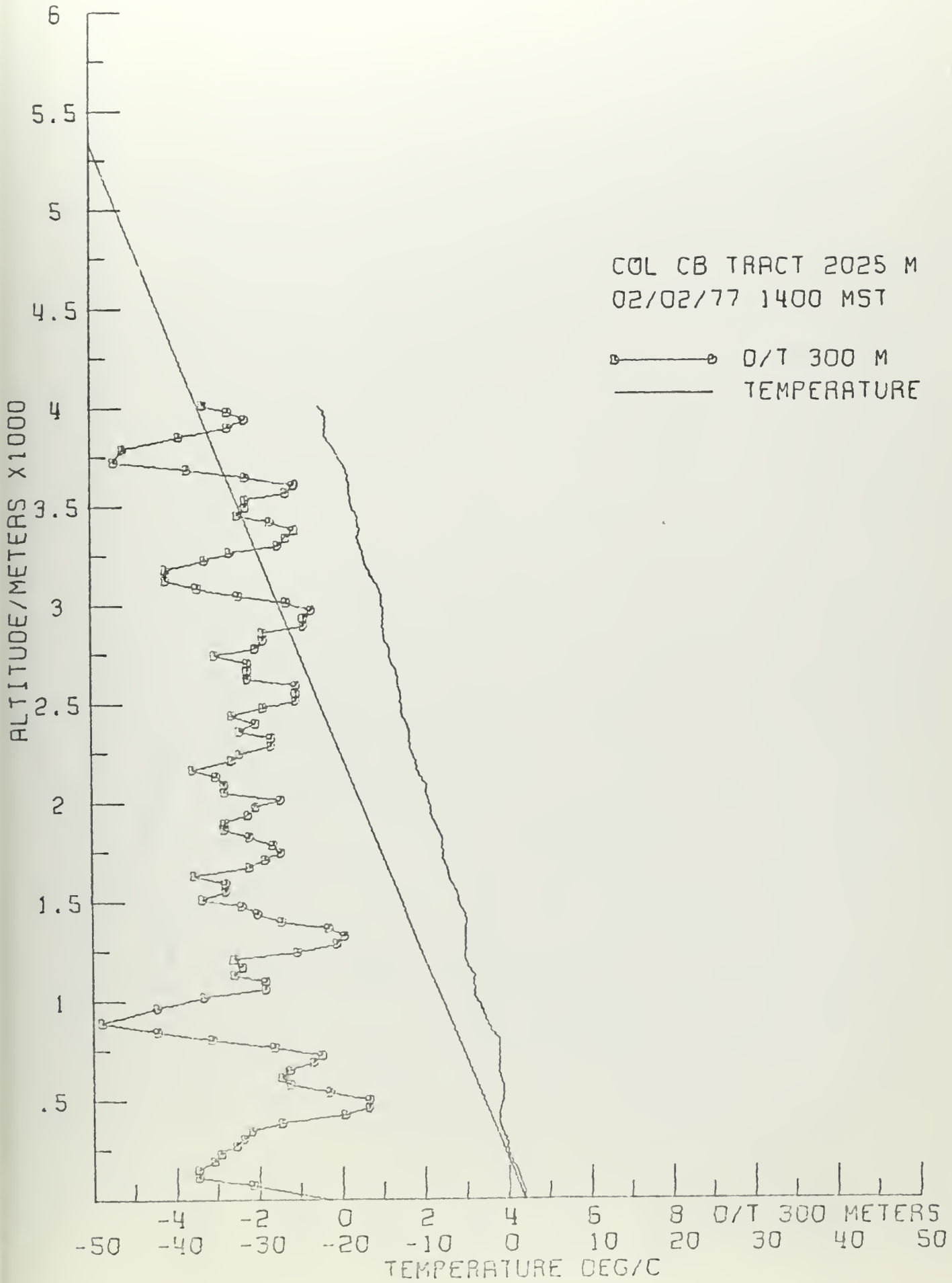






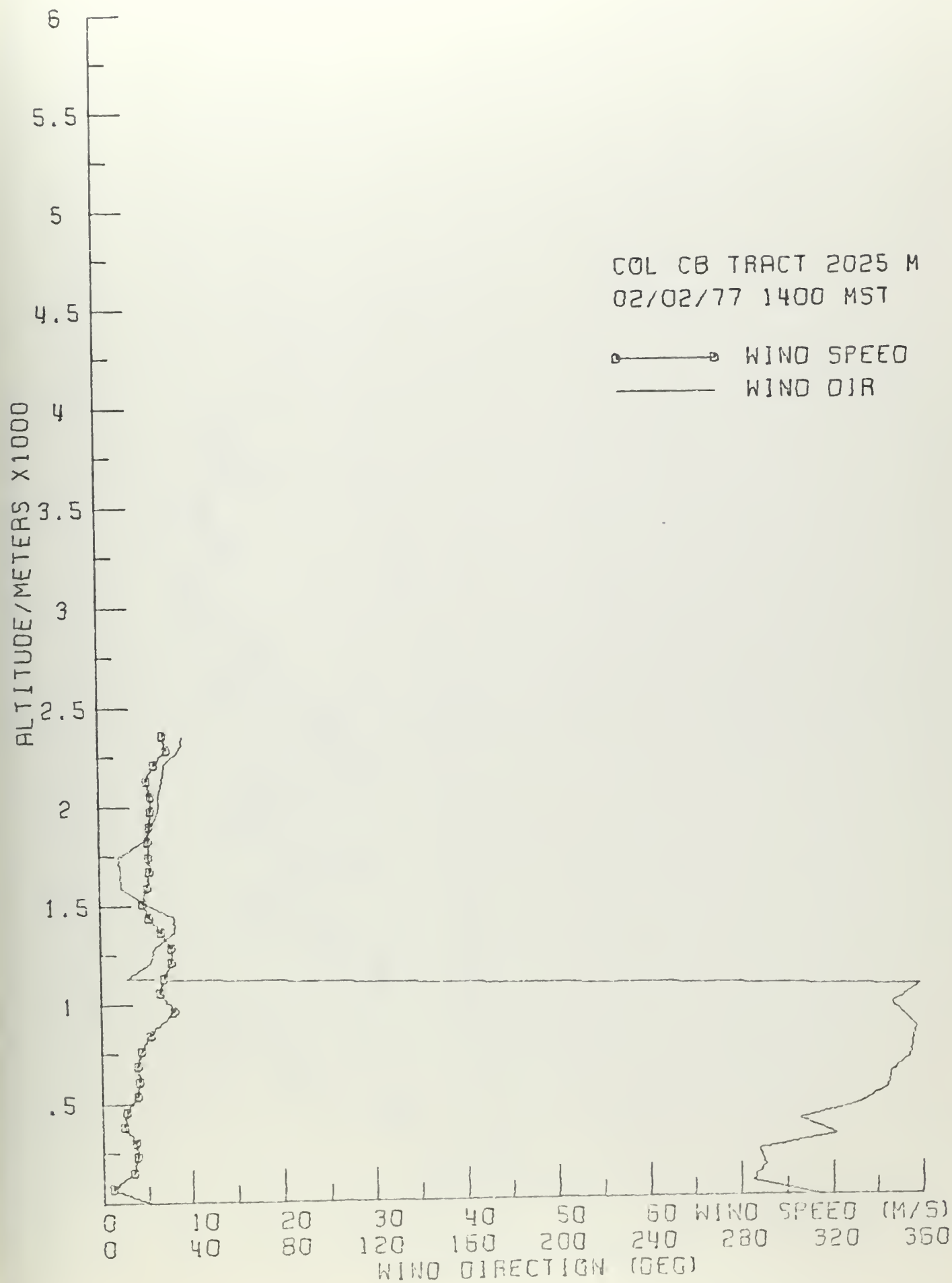




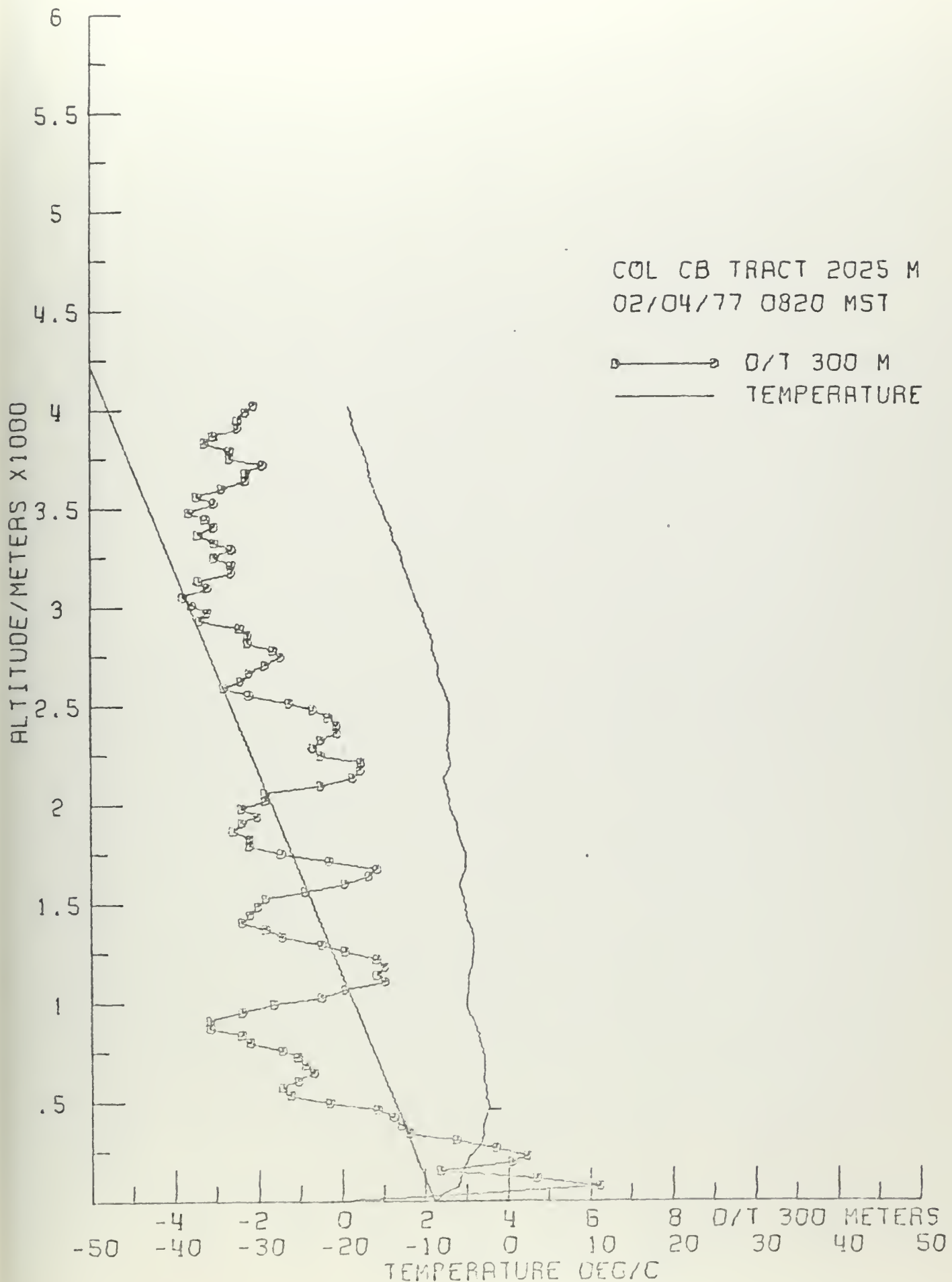


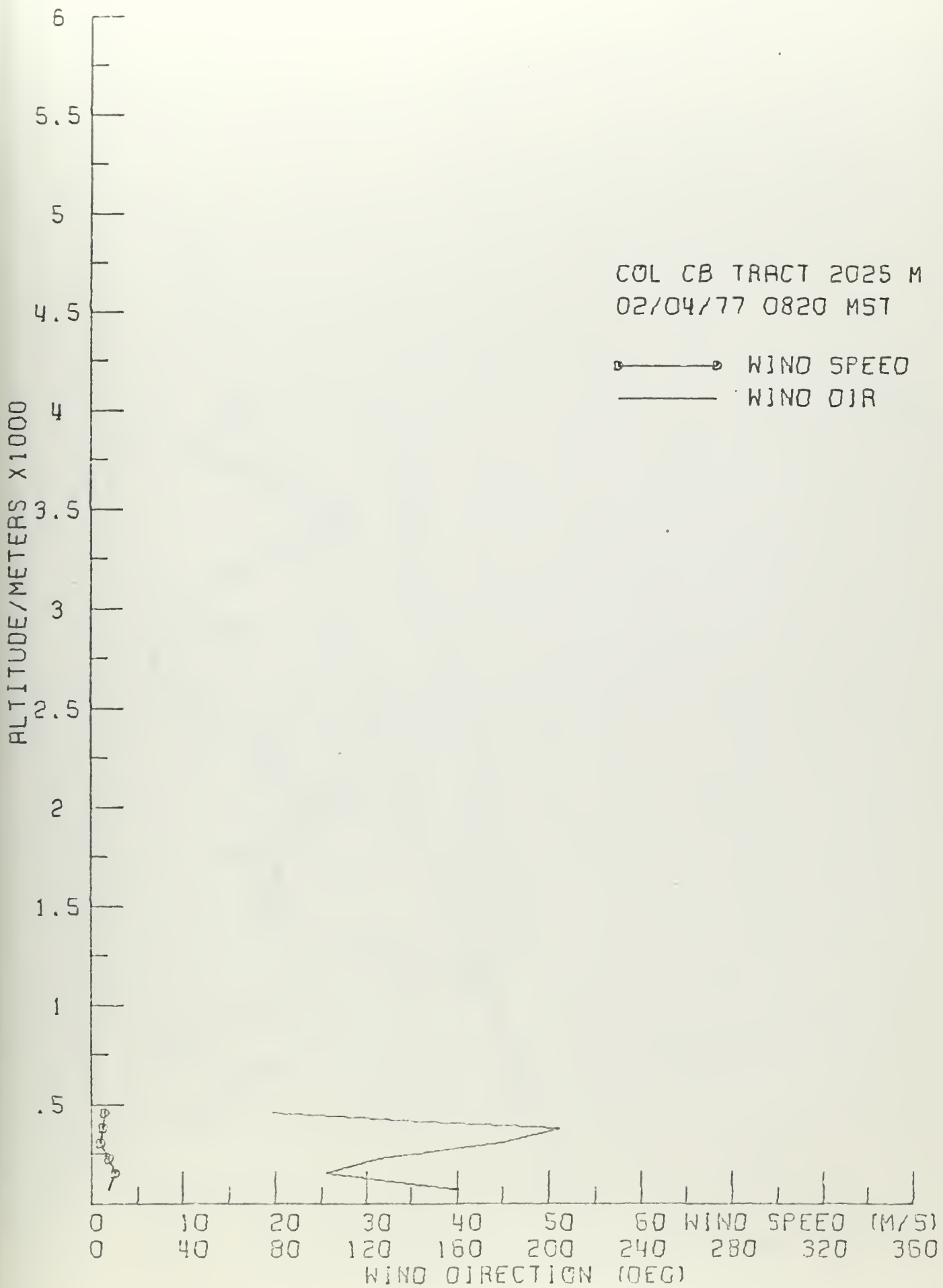
COL CB TRACT 2025 M
02/02/77 1400 MST



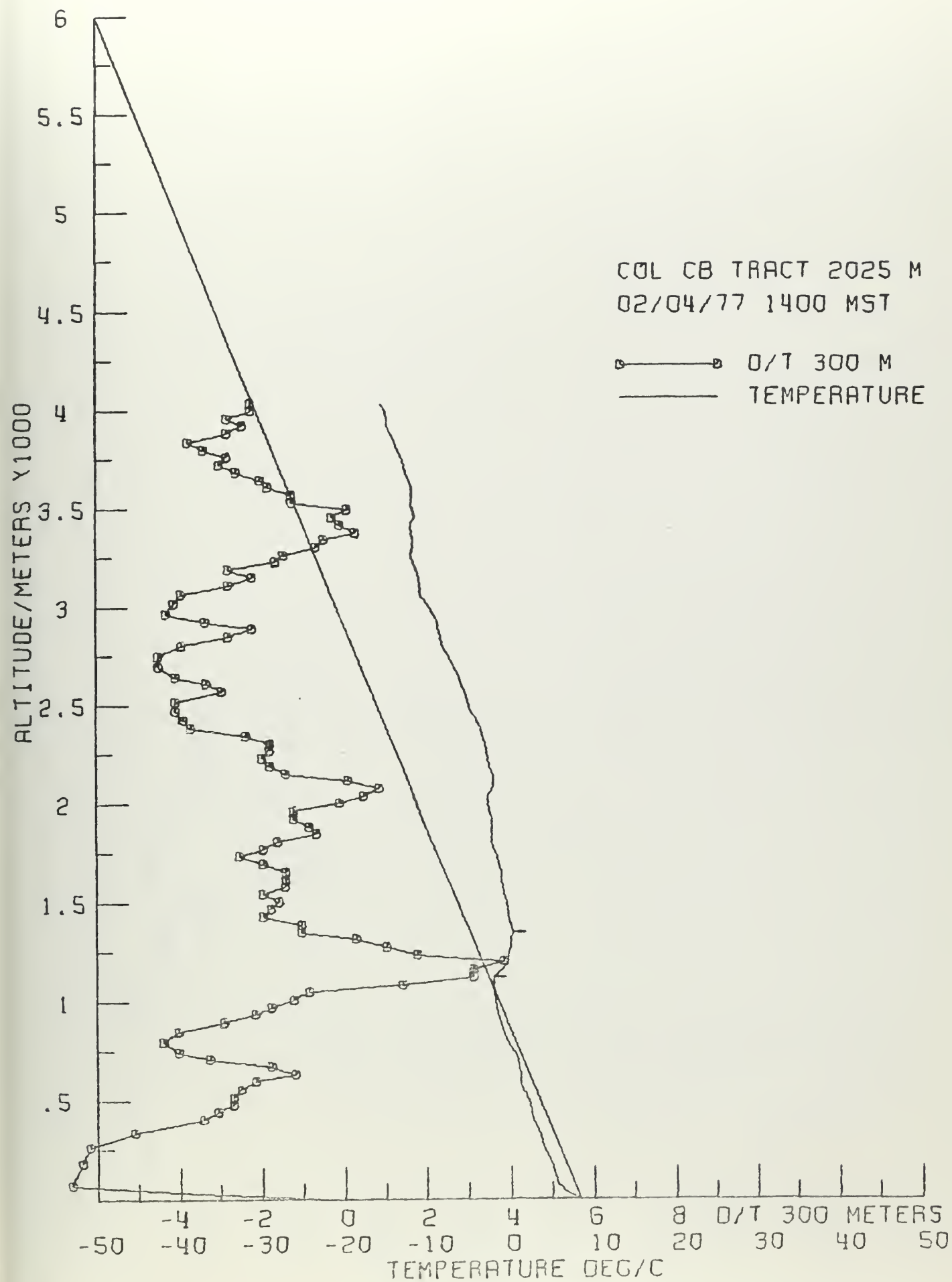




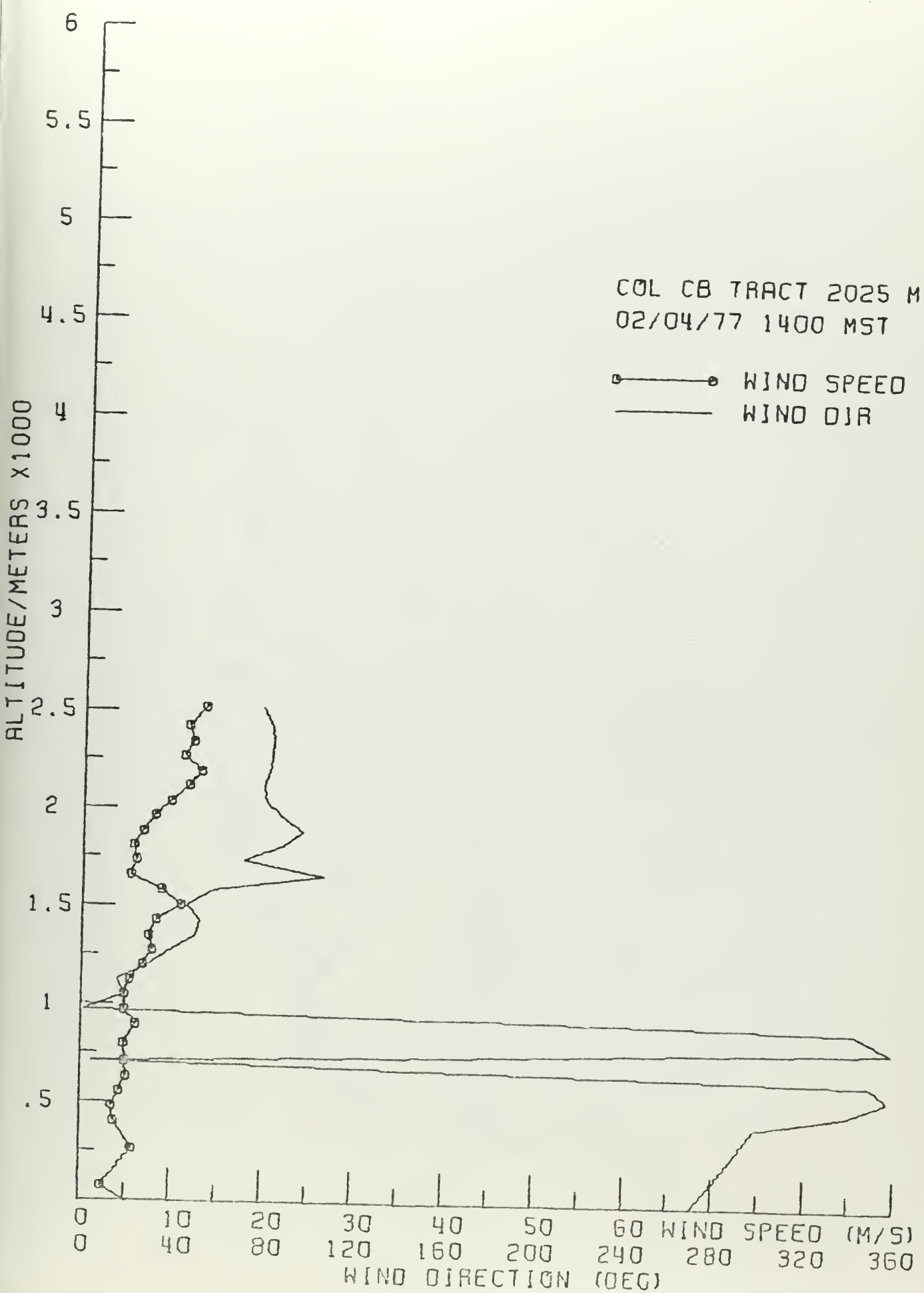


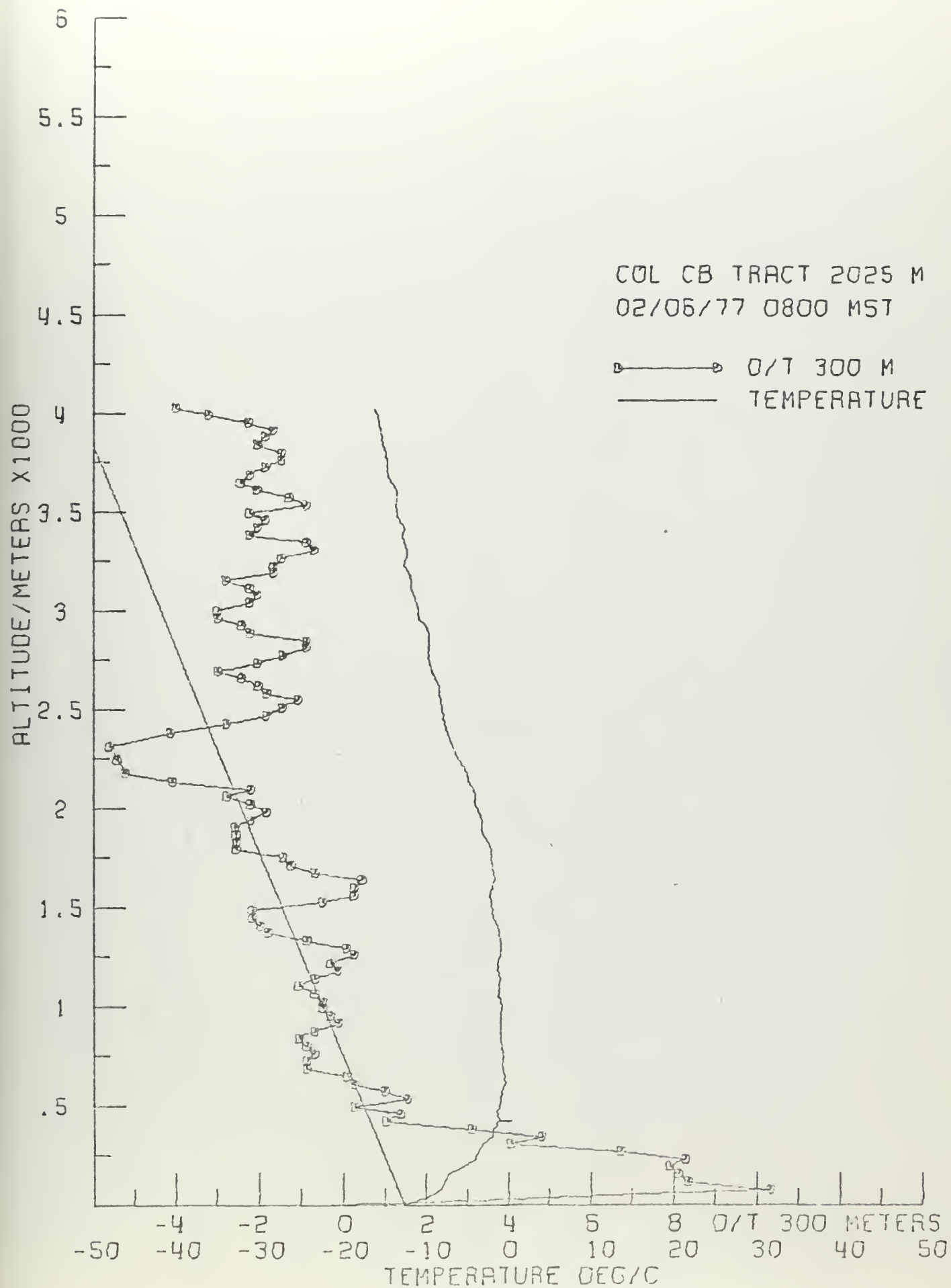






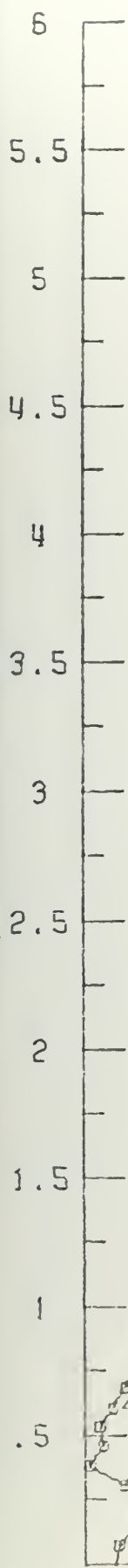






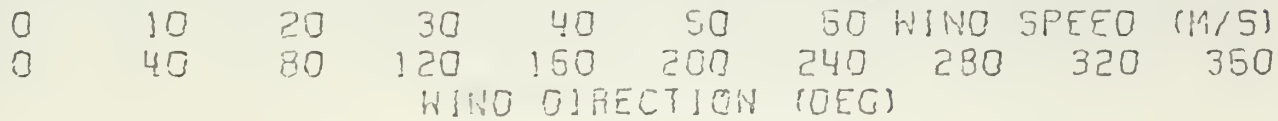


ALTITUDE/METERS X1000

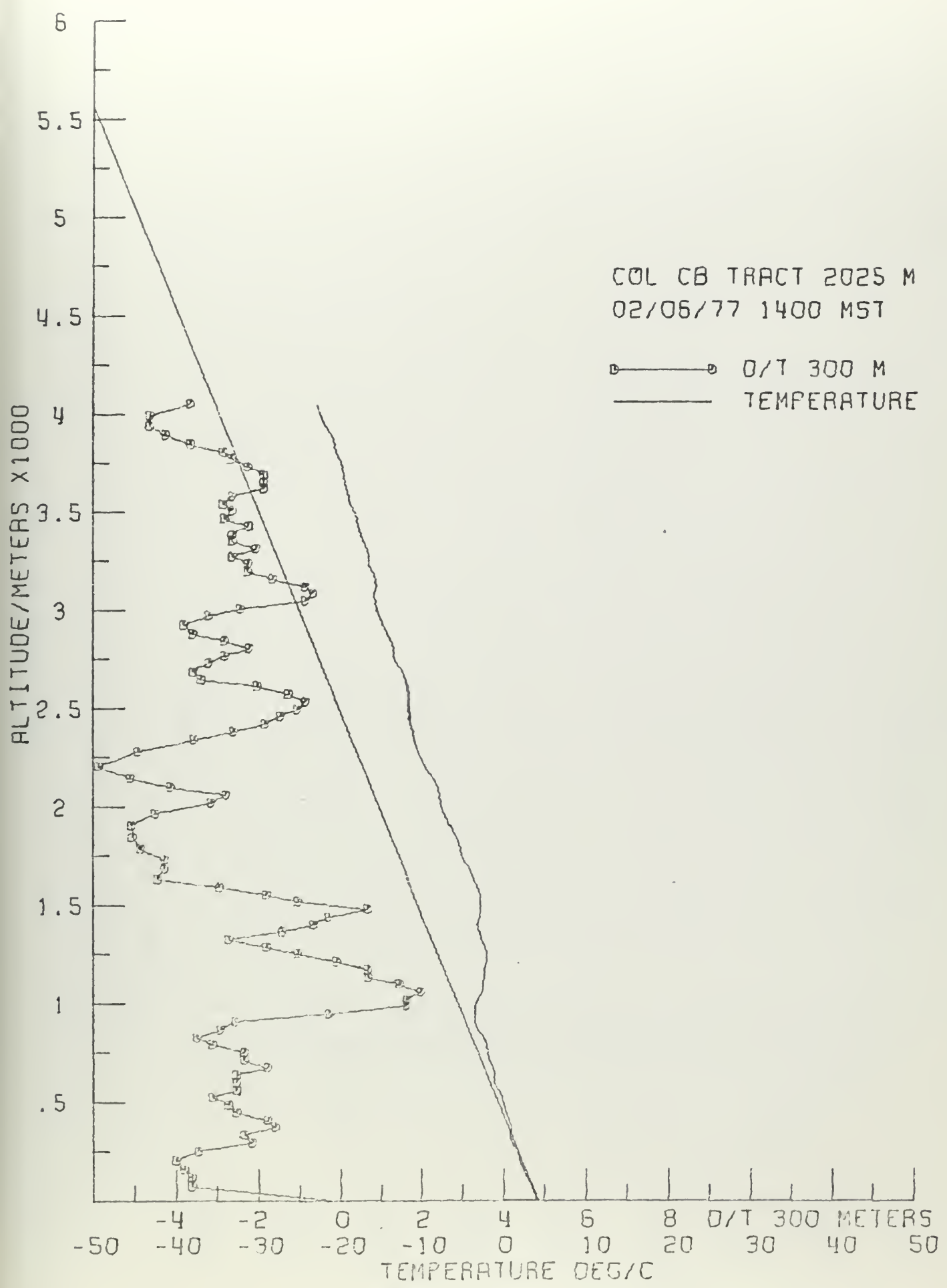


COL CB TRACT 2025 M
02/06/77 0800 MST

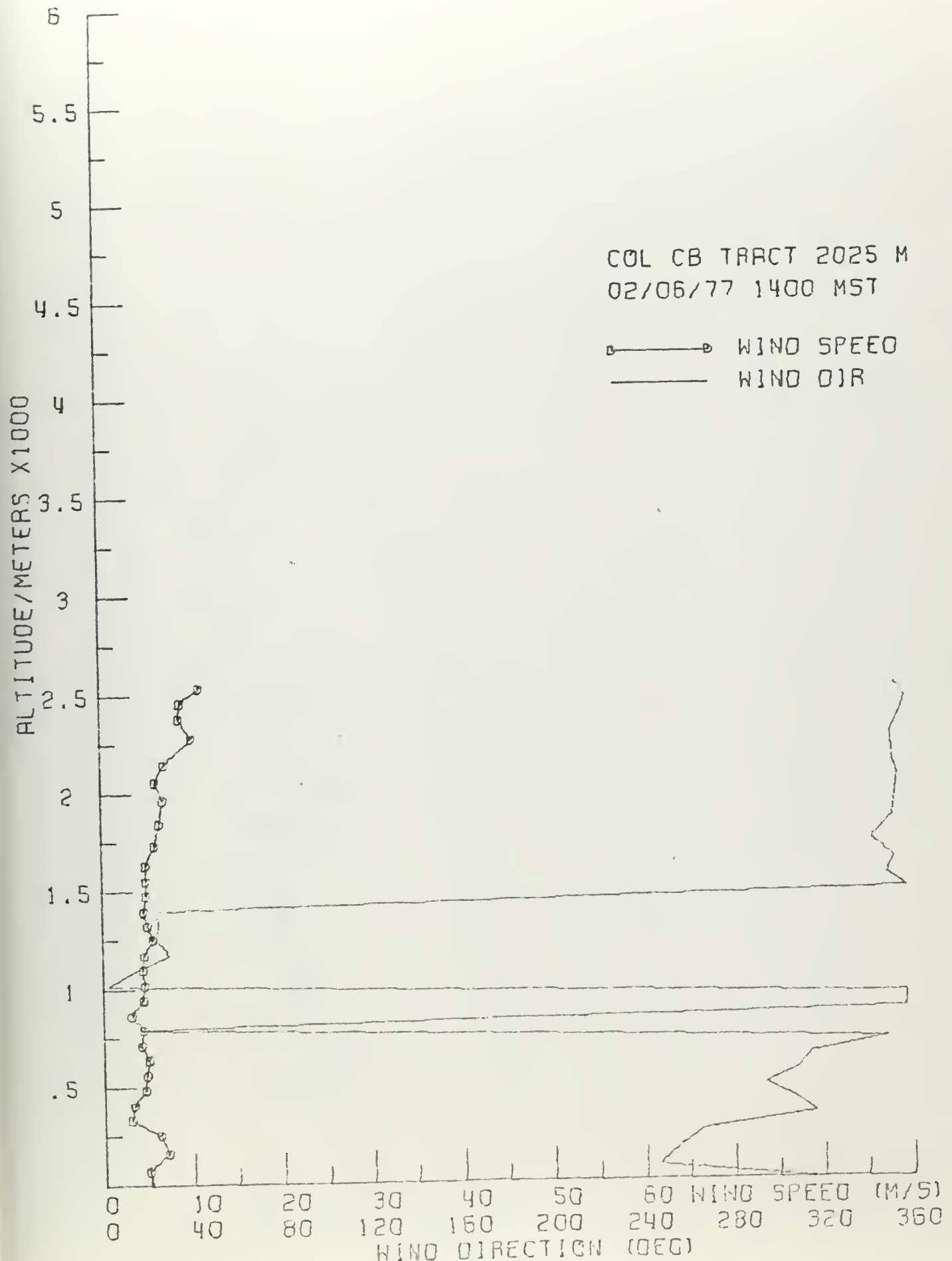
WIND SPEED
WIND DIR



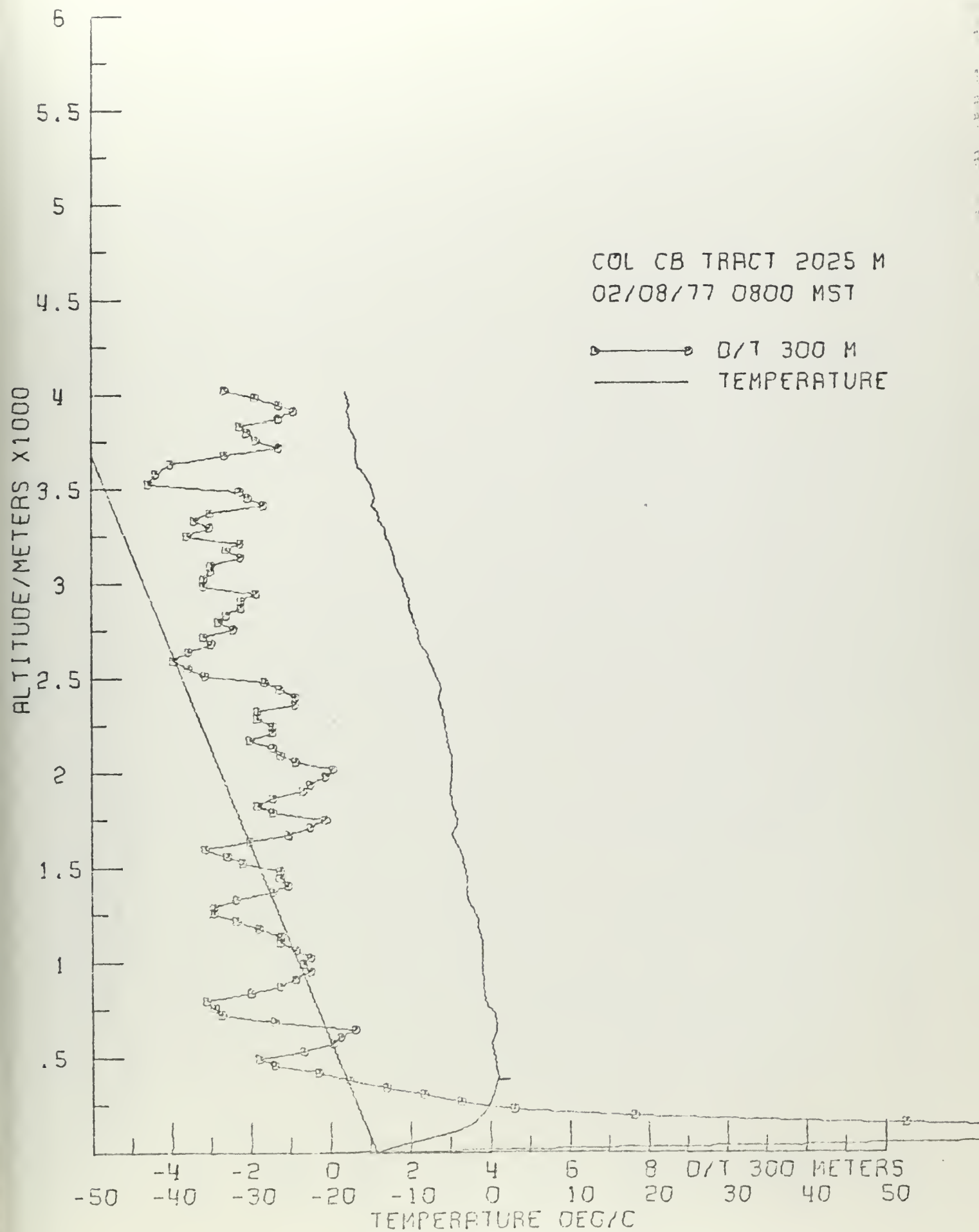




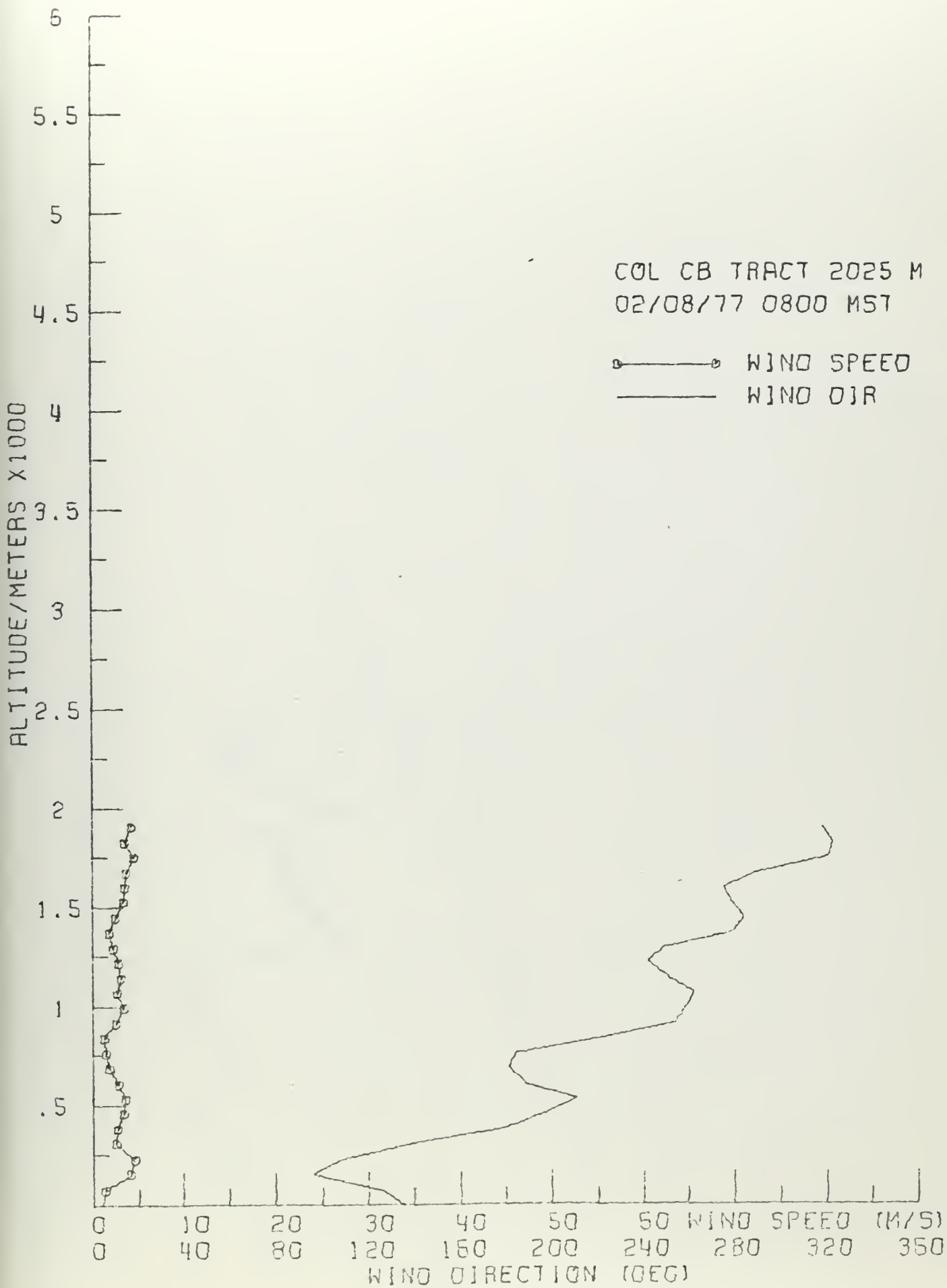




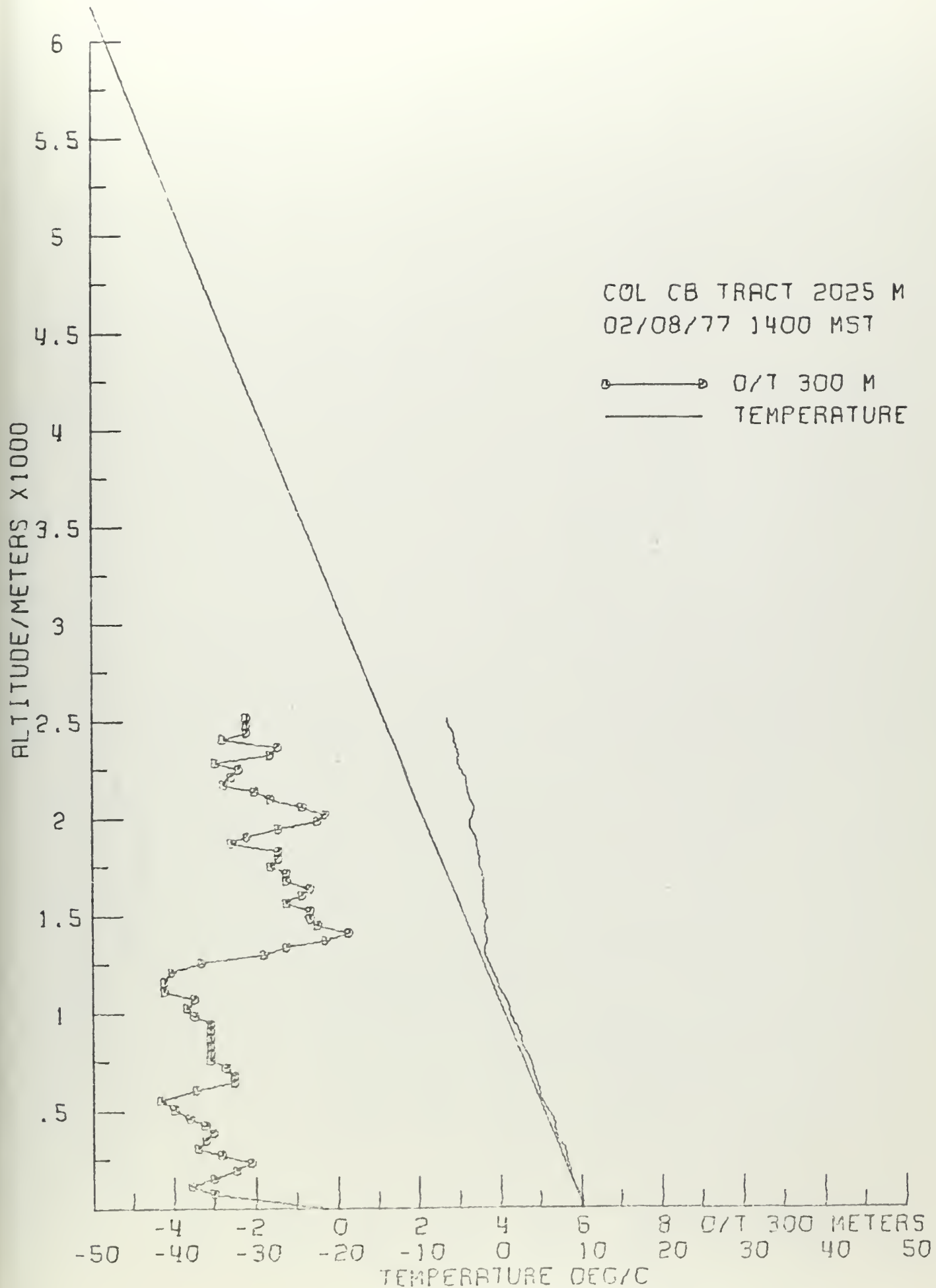




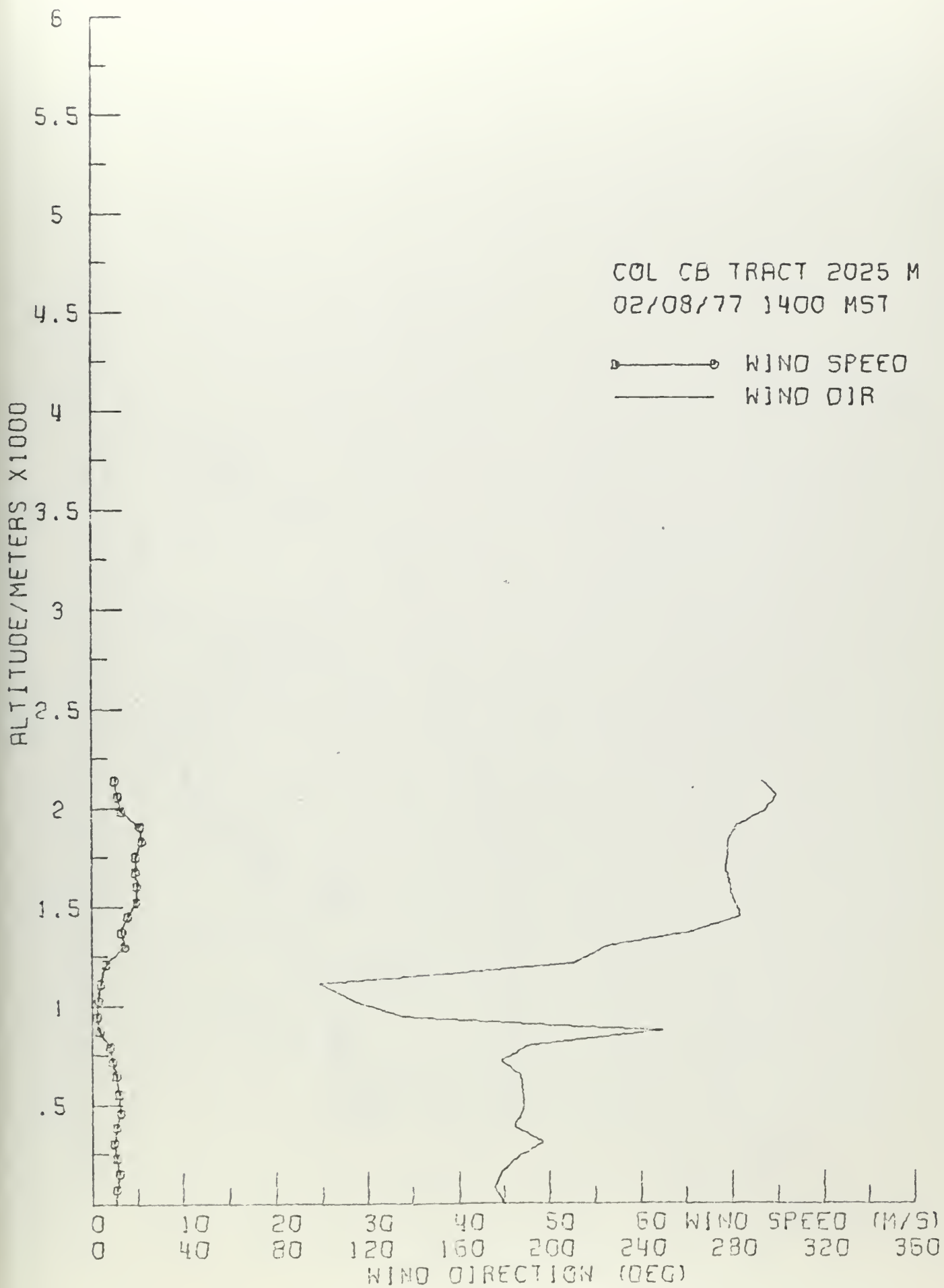




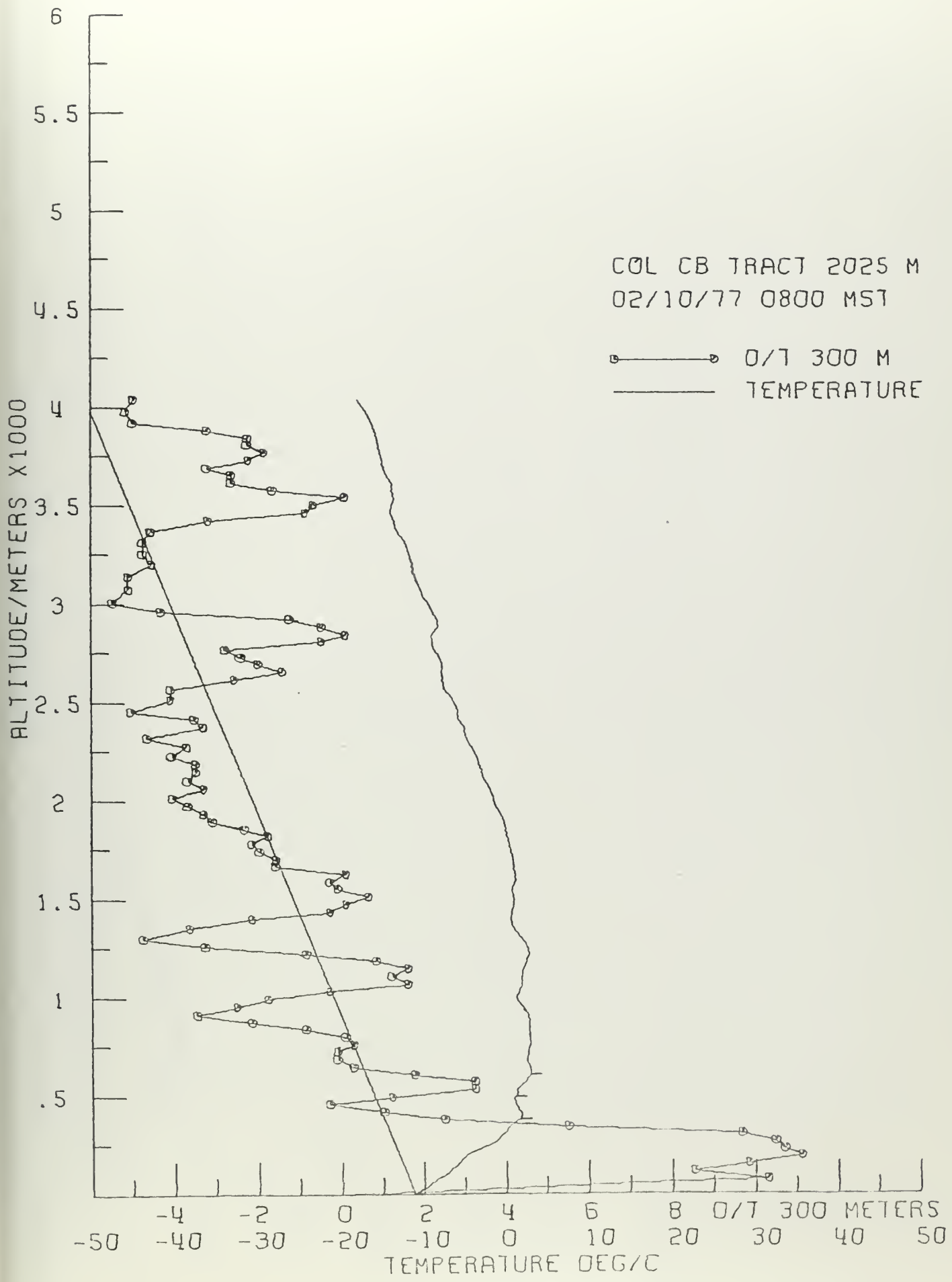




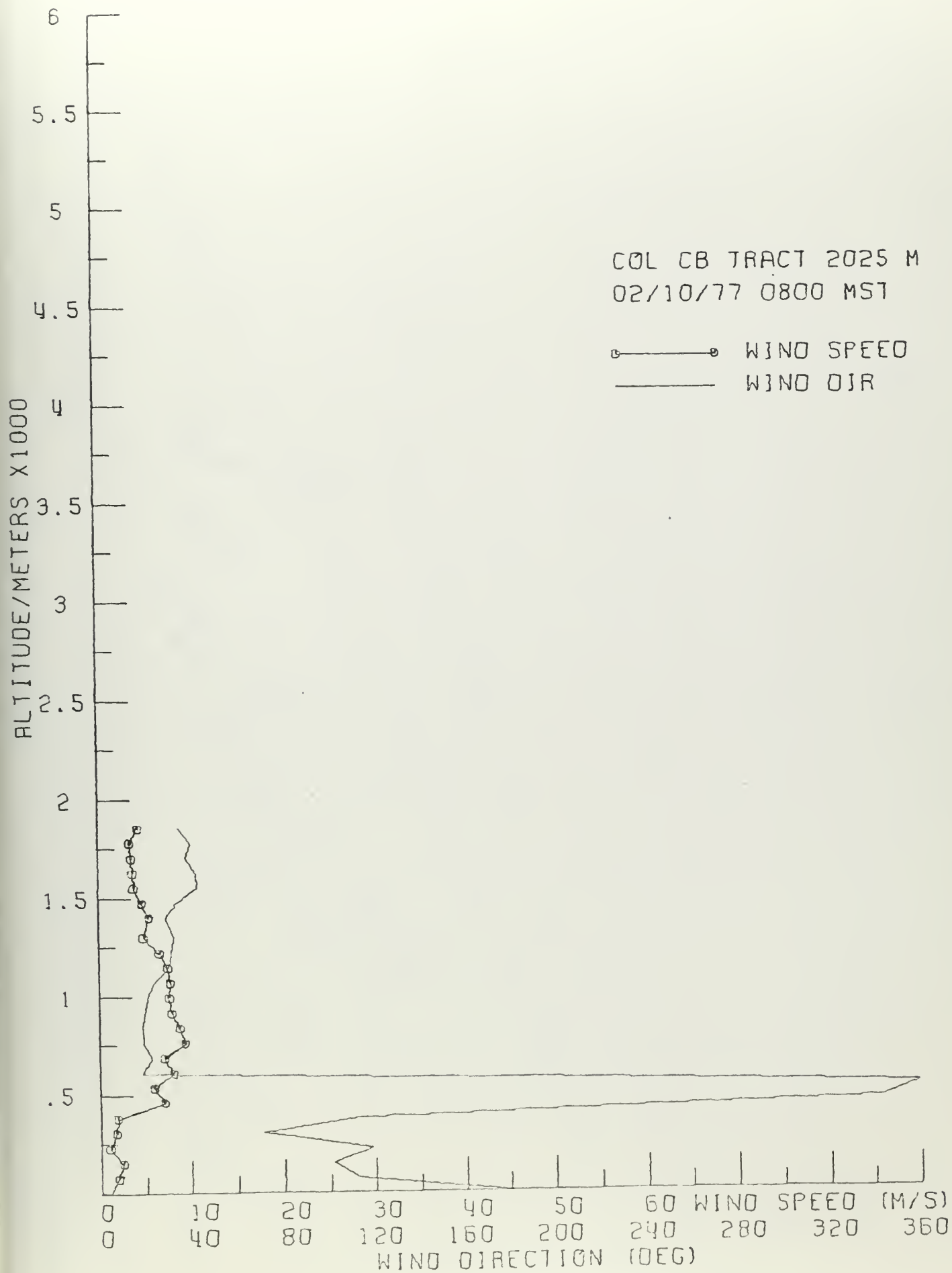


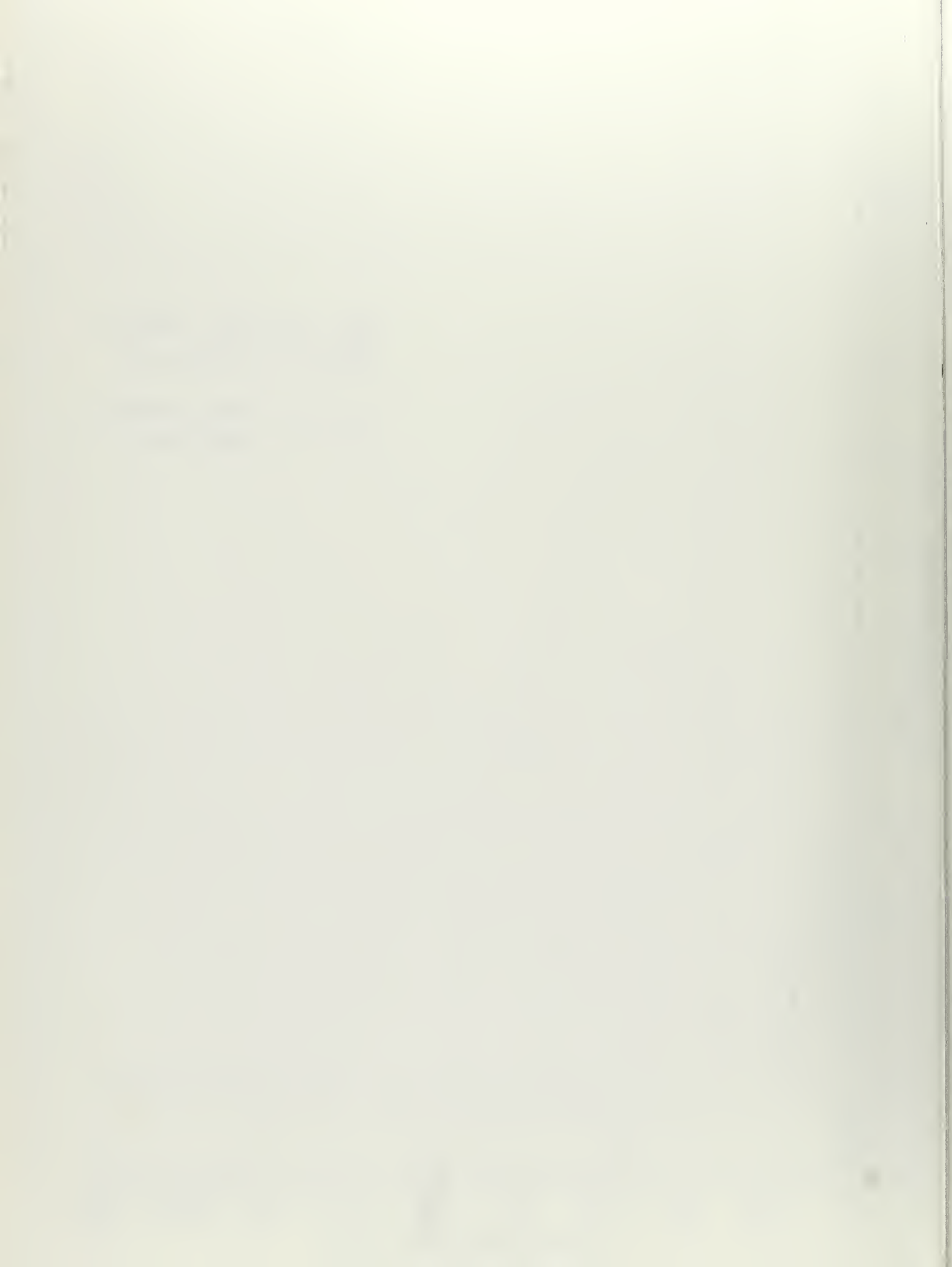


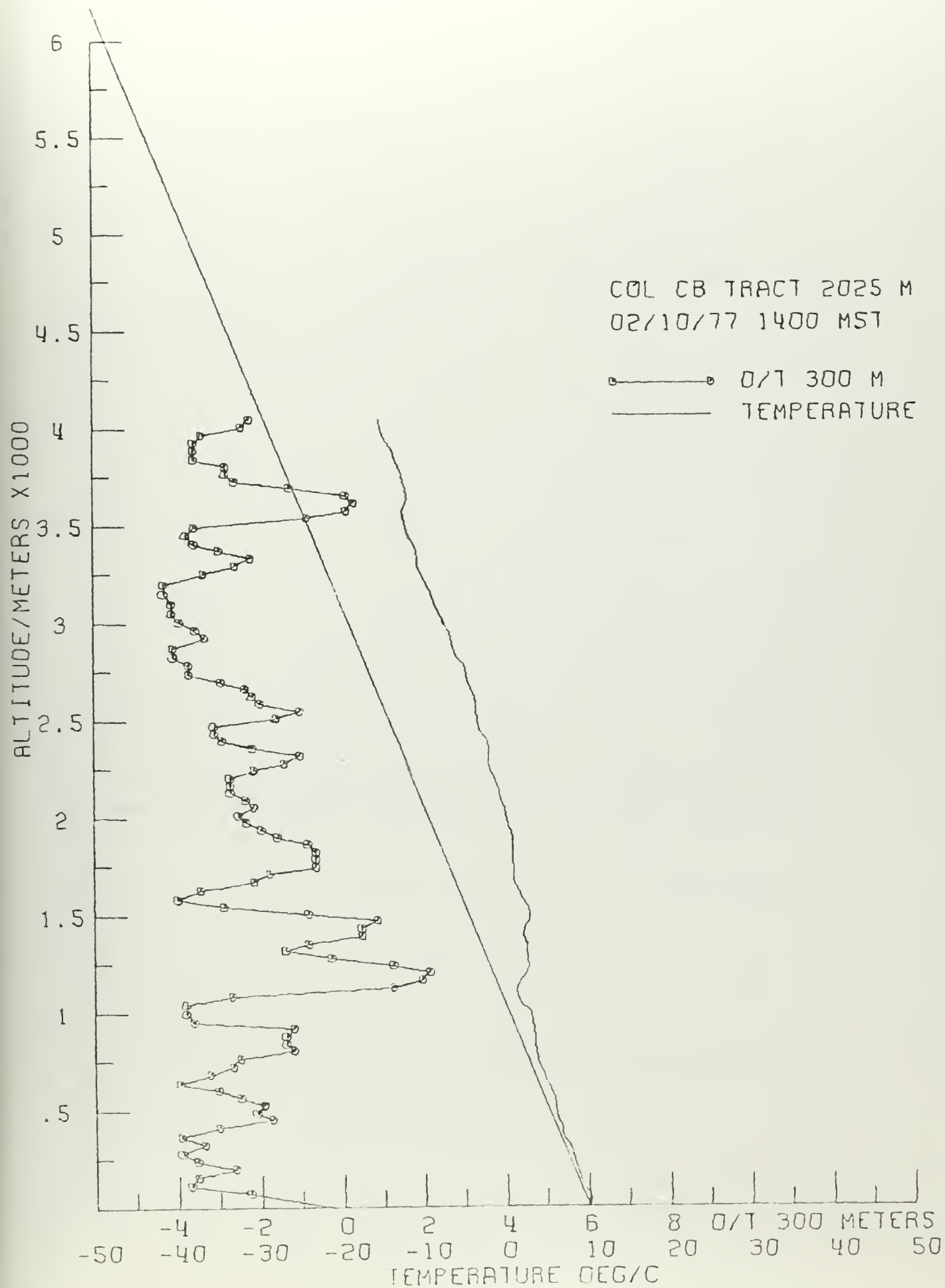




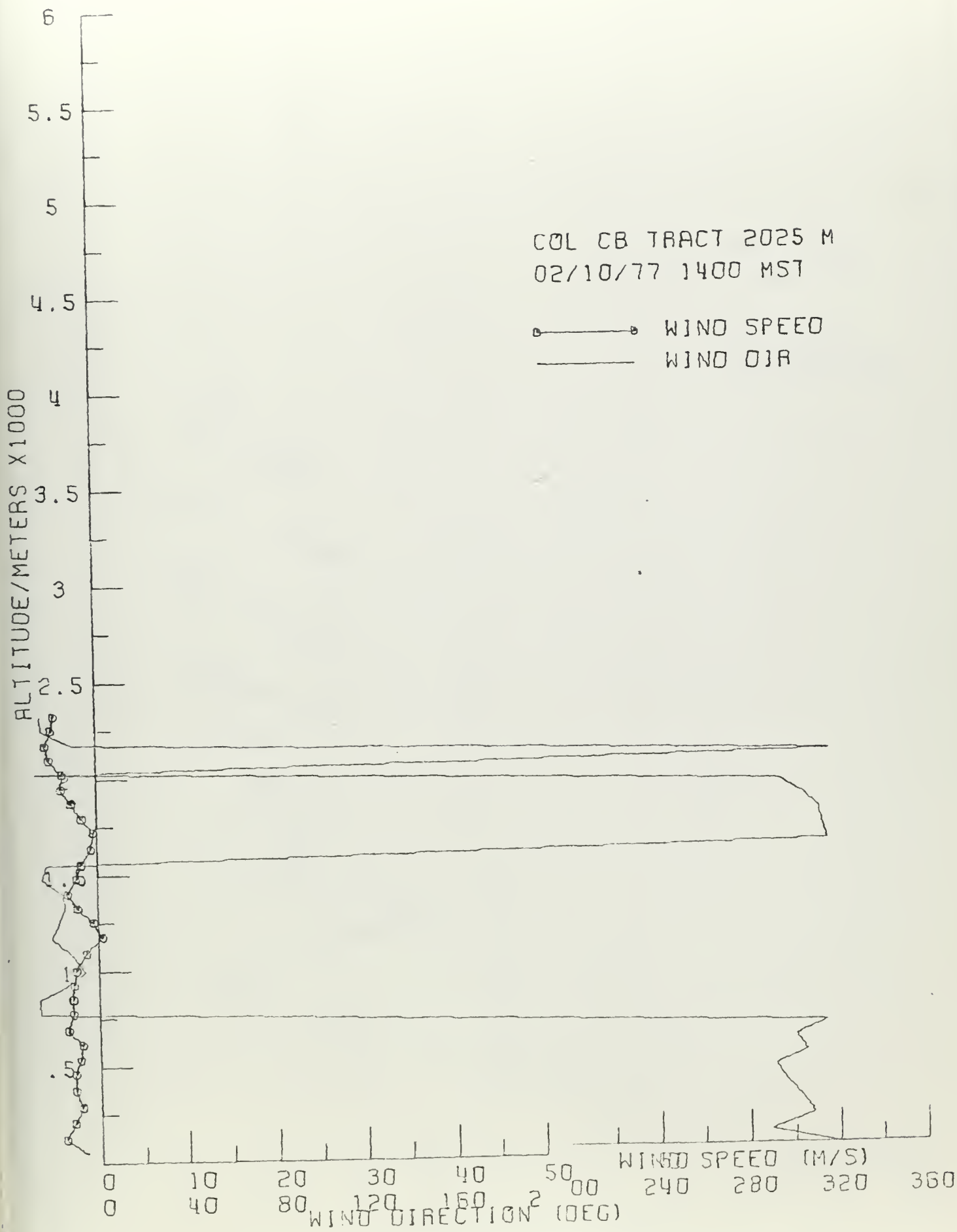
COL CB TRACT 2025 M
02/10/77 0800 MST



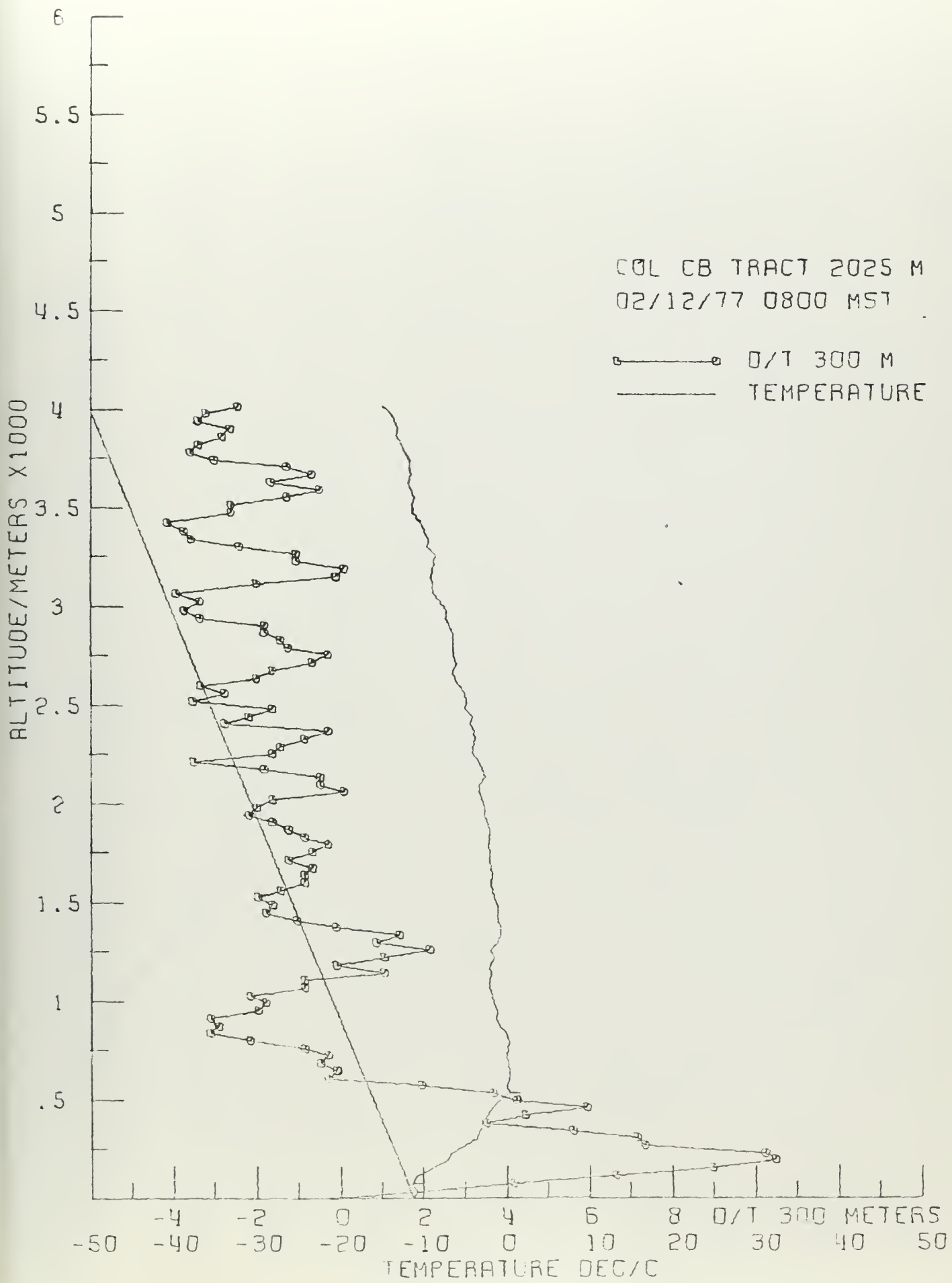




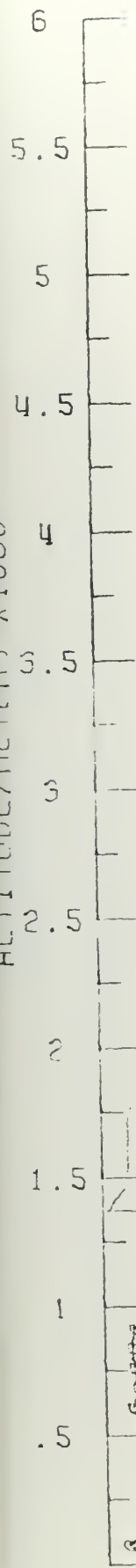








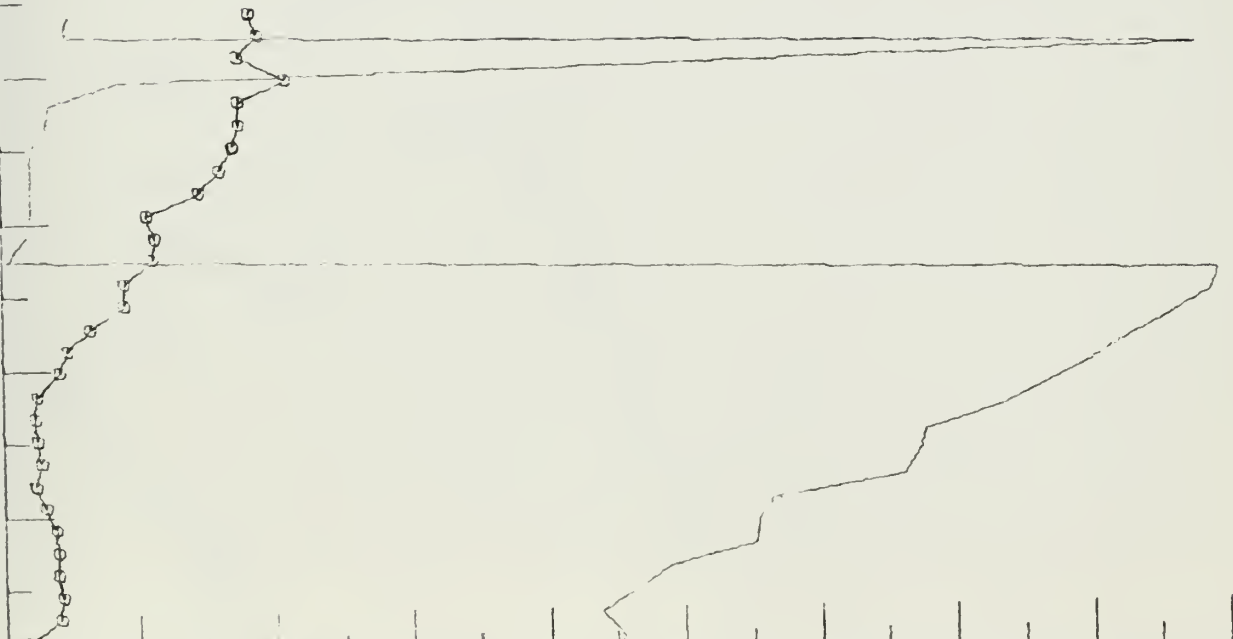
ALTITUDE/METERS X1000

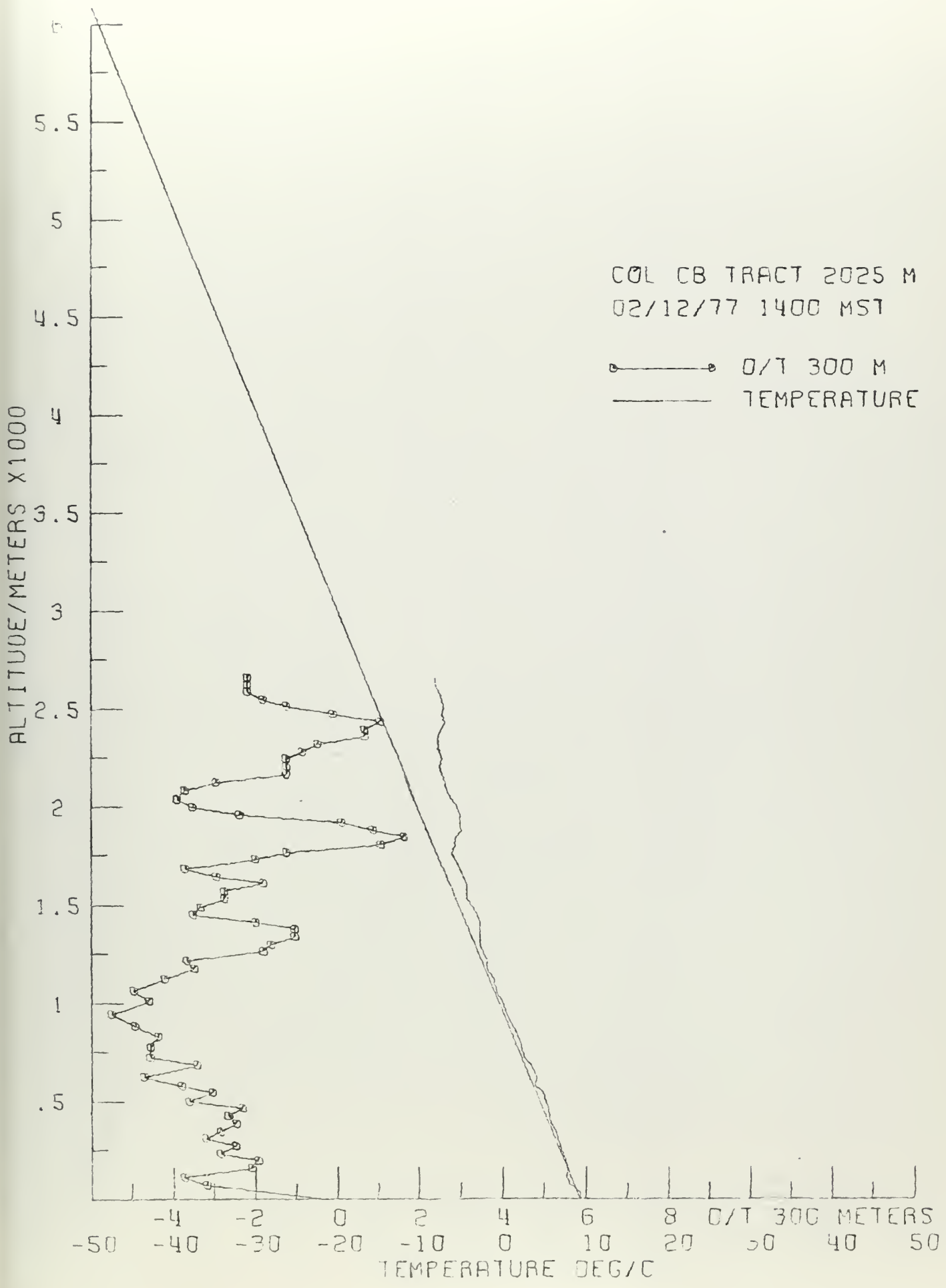


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02/12/77 0800 MST

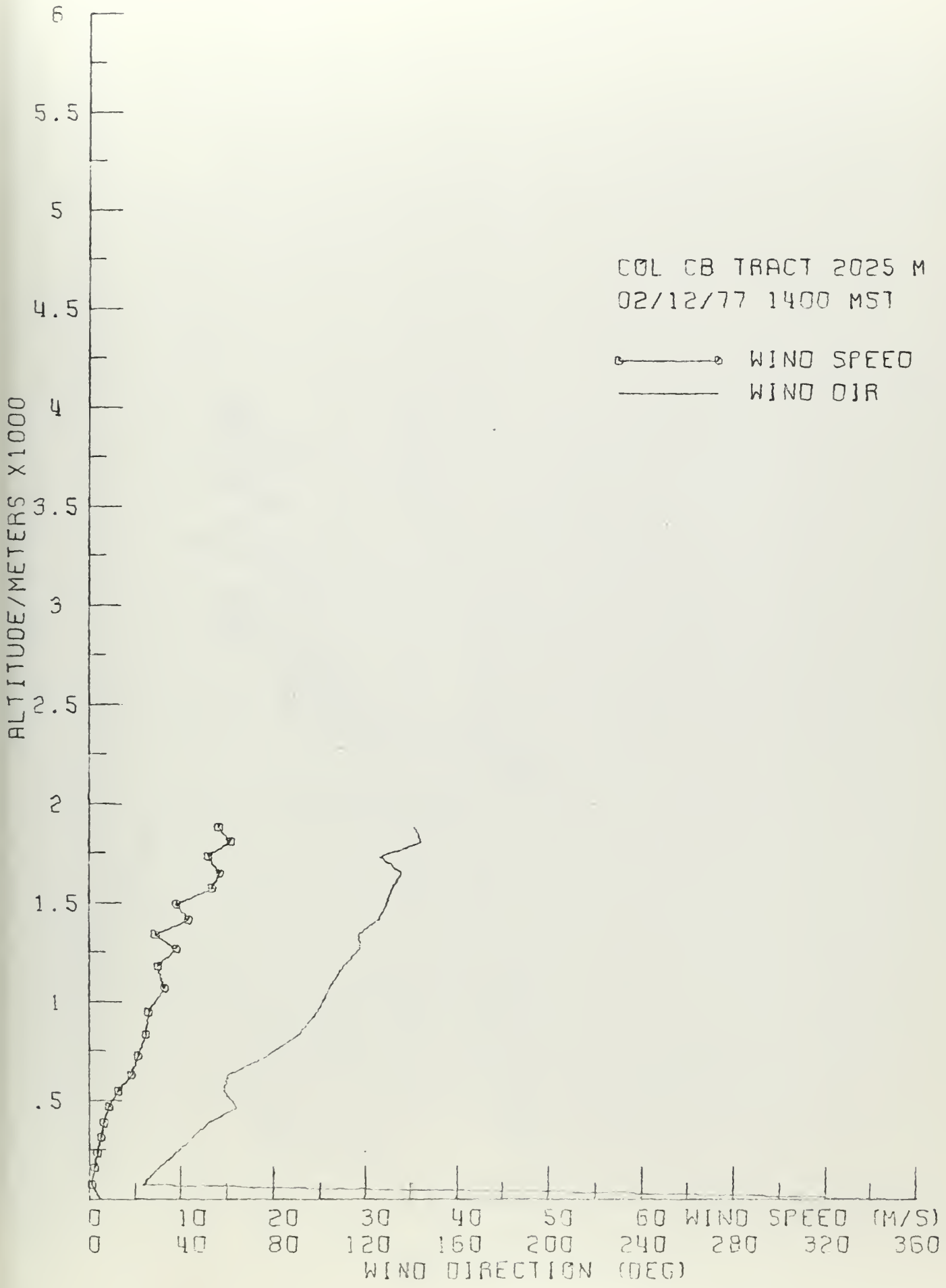
WIND SPEED
WIND DIR

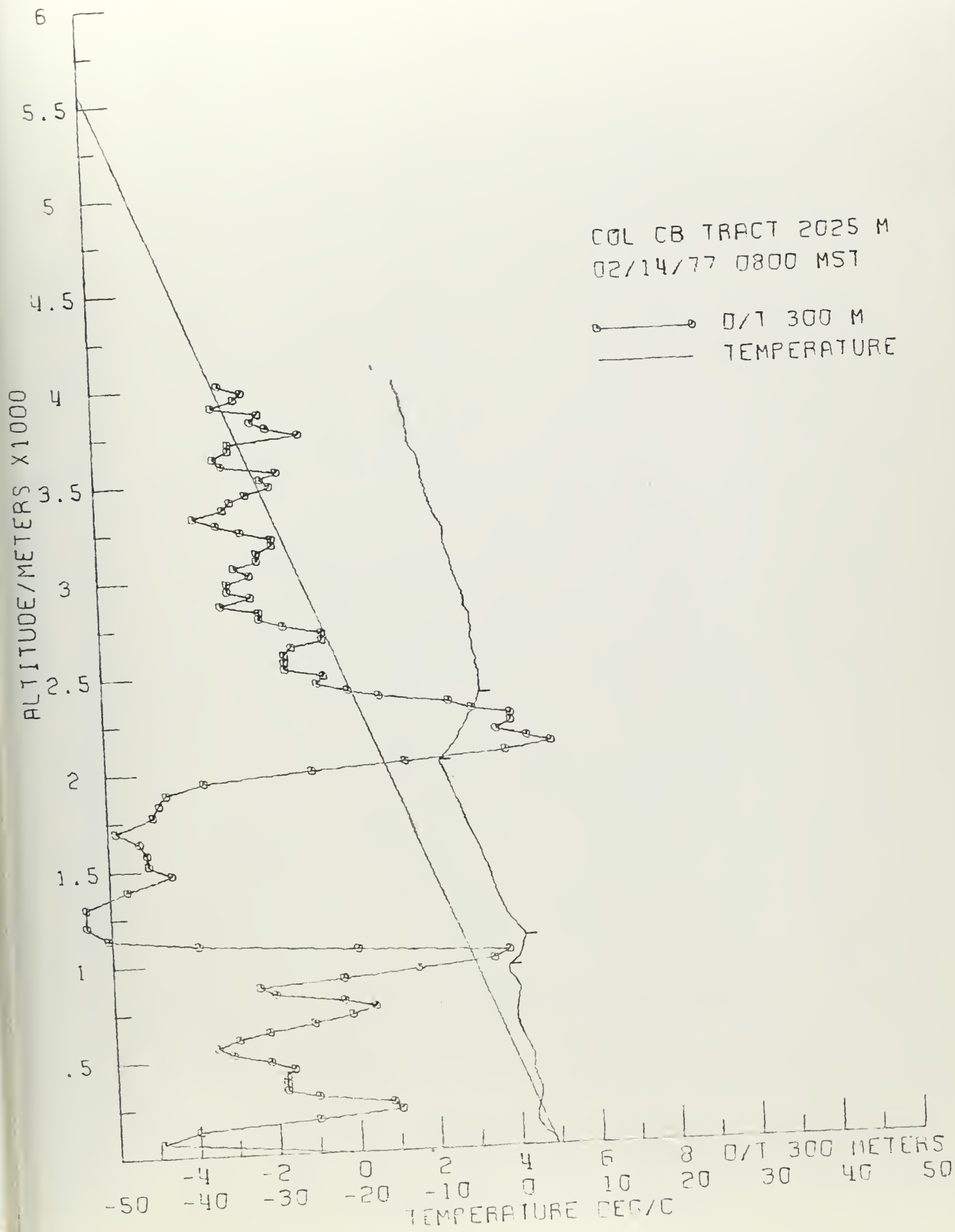
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360
WIND SPEED (M/S)
0 40 80 120 160 200 240 280 320 360
WIND DIRECTION (DEG)



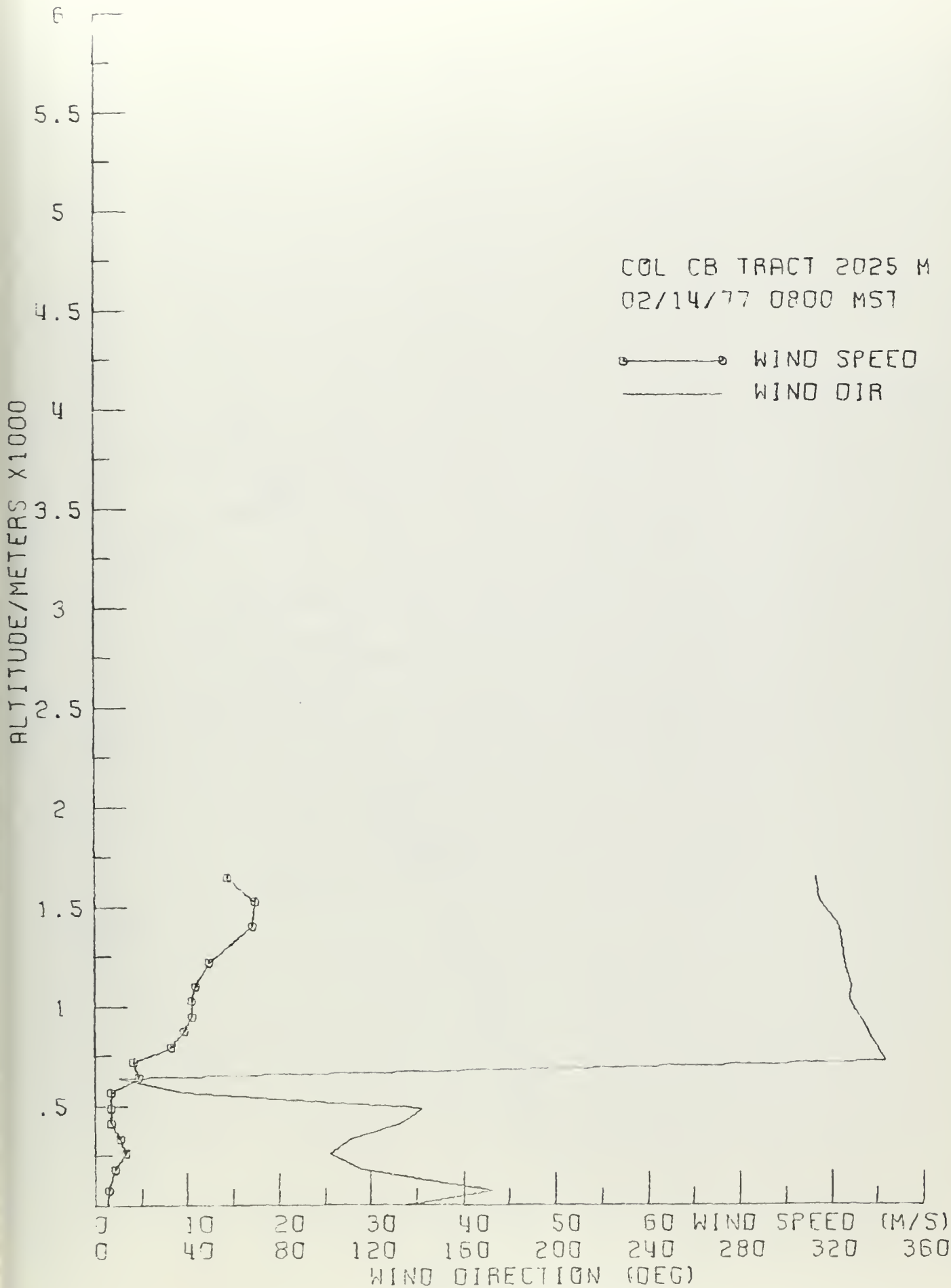


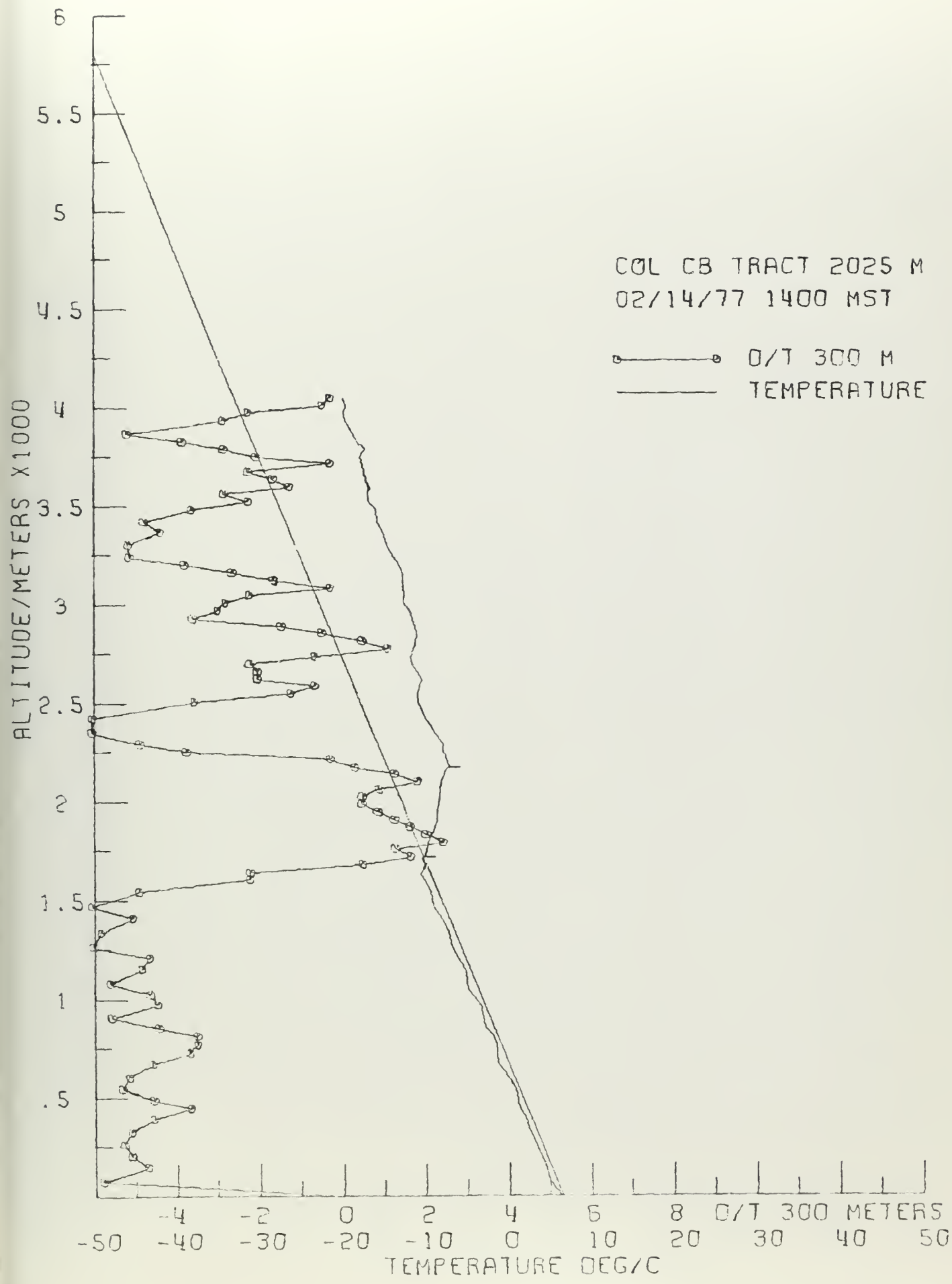
COL CB TRACT 2025 M
02/12/77 1400 MST



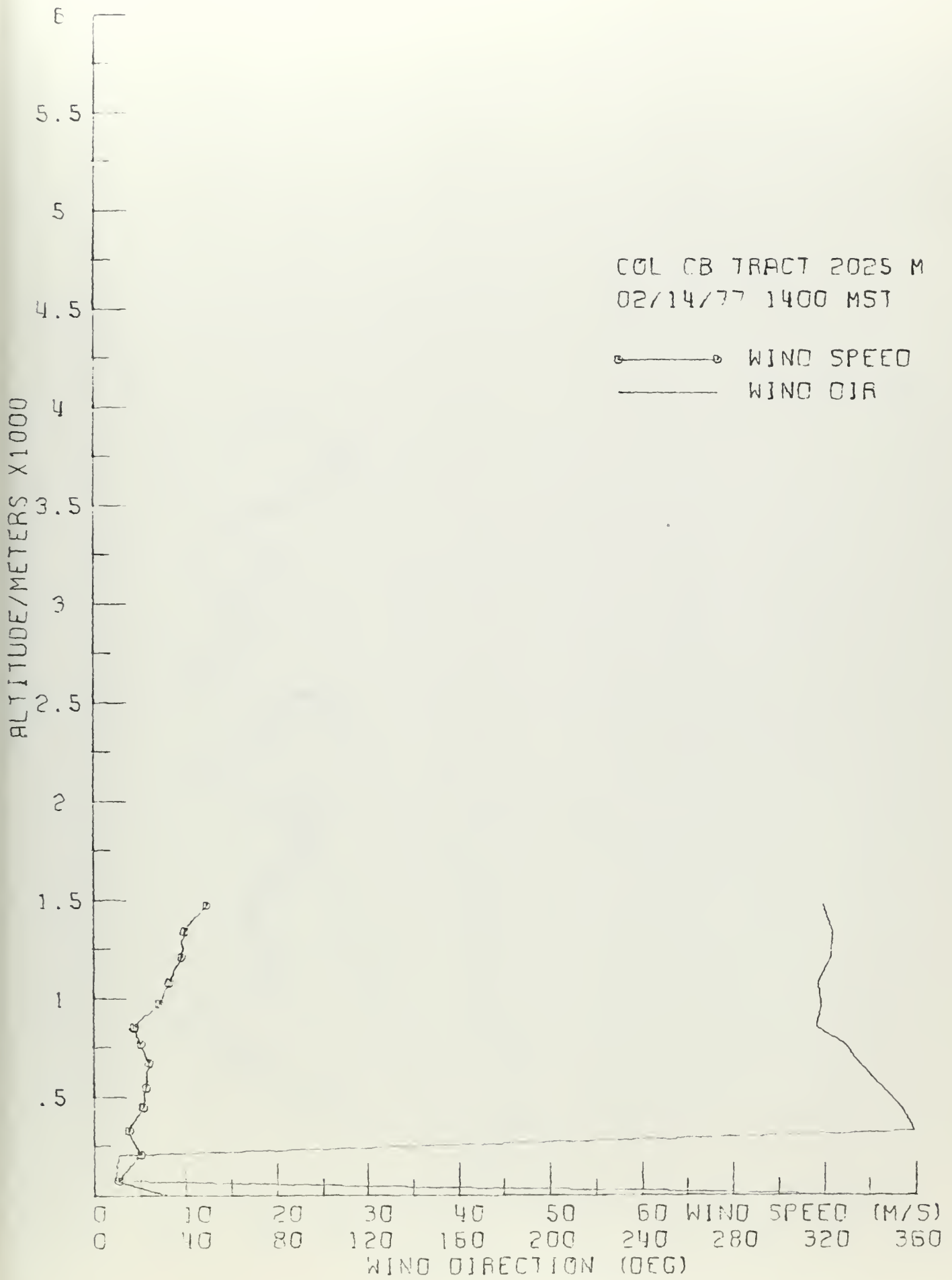


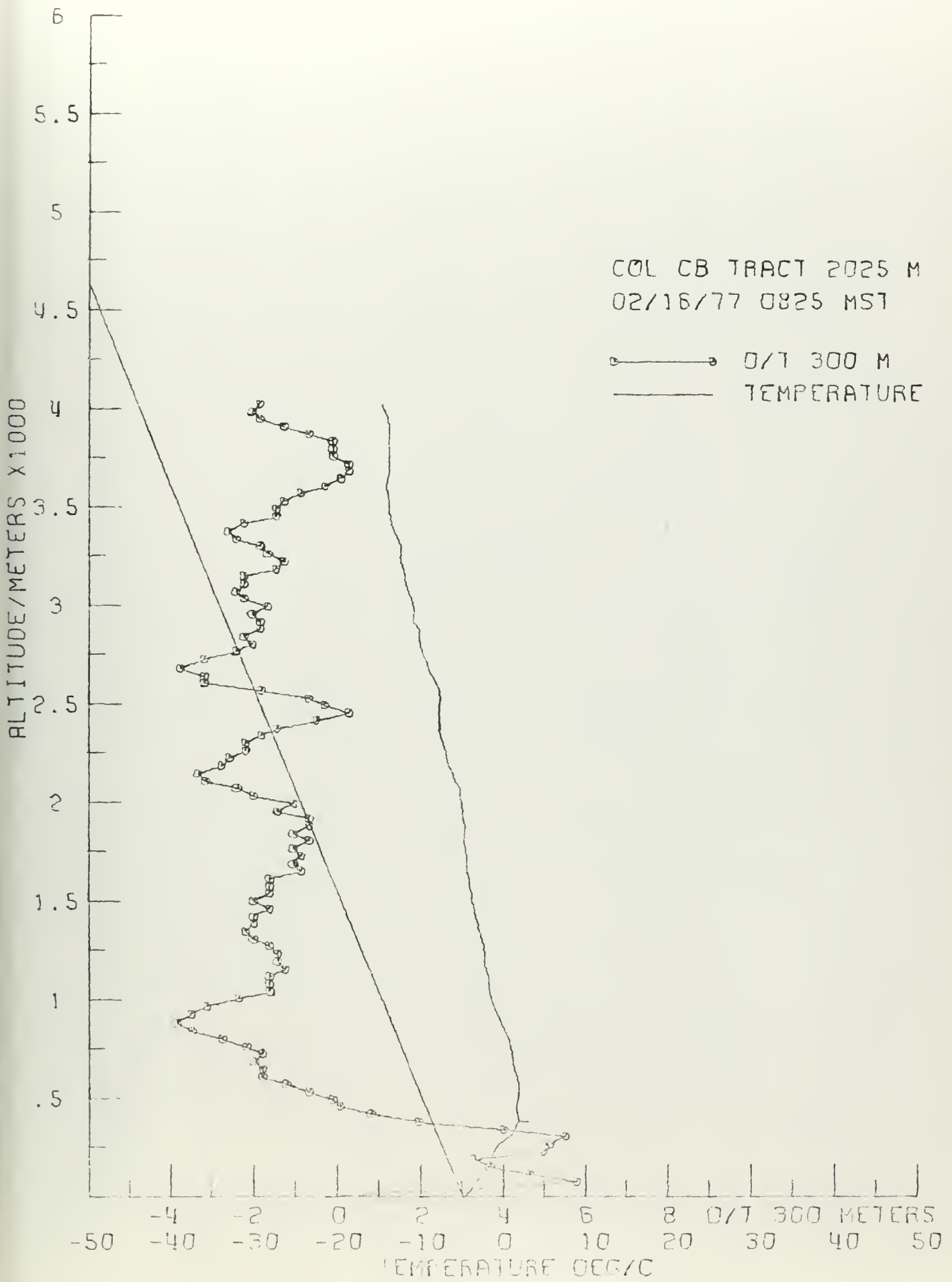
COL CB TRACT 2025 M
02/14/77 0800 MST





COL CB TRACT 2025 M
02/14/77 1400 MST

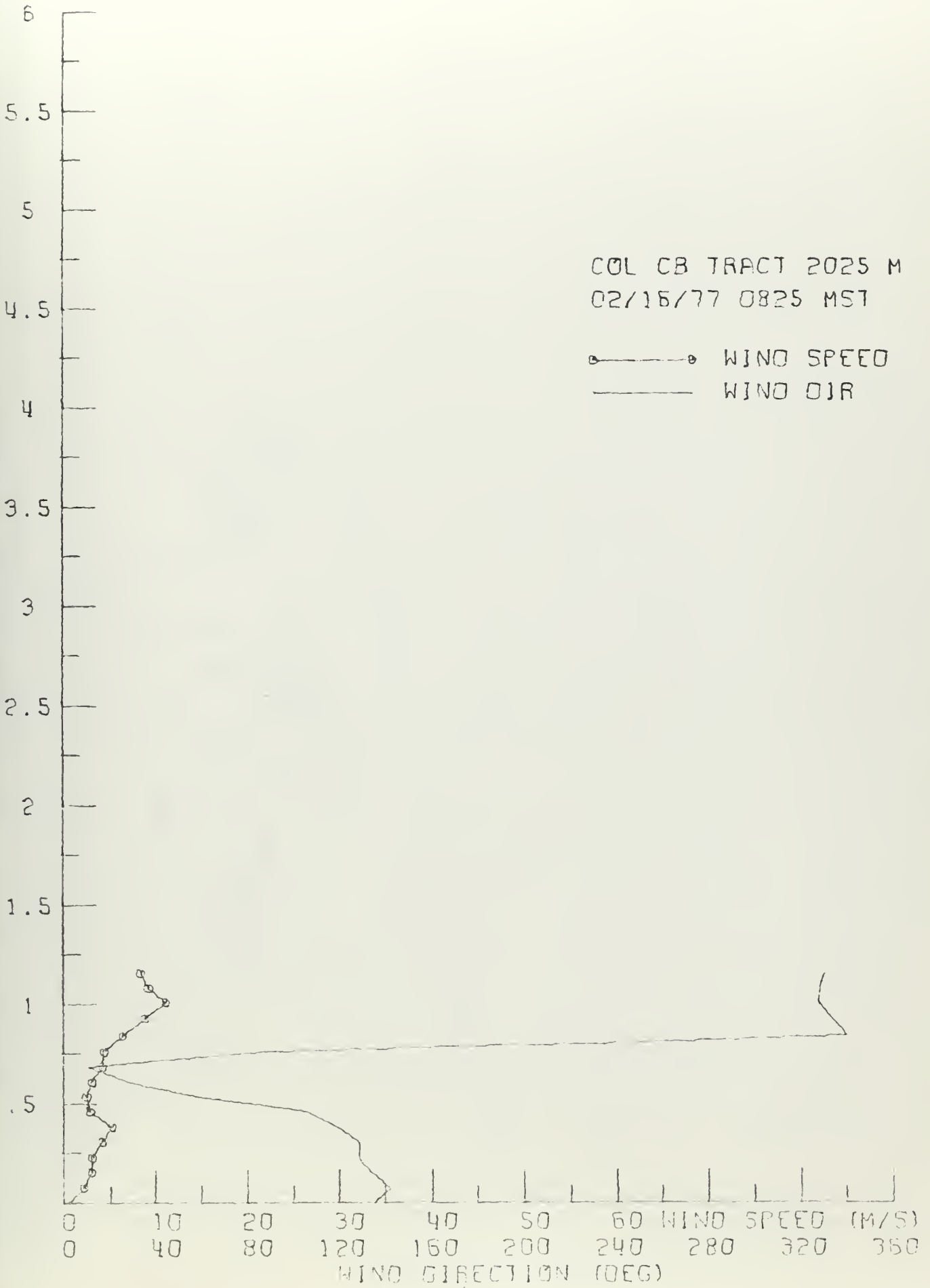


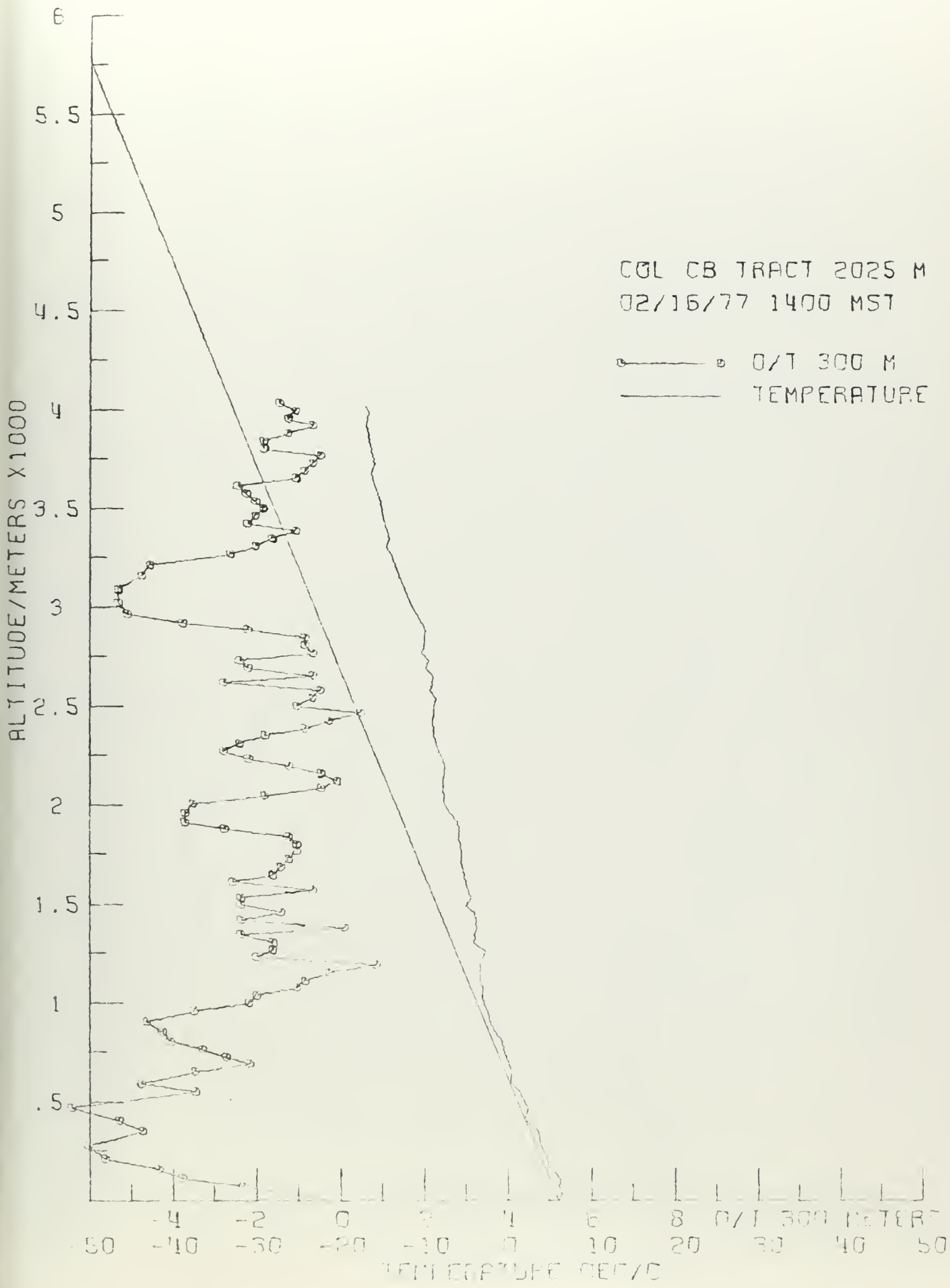


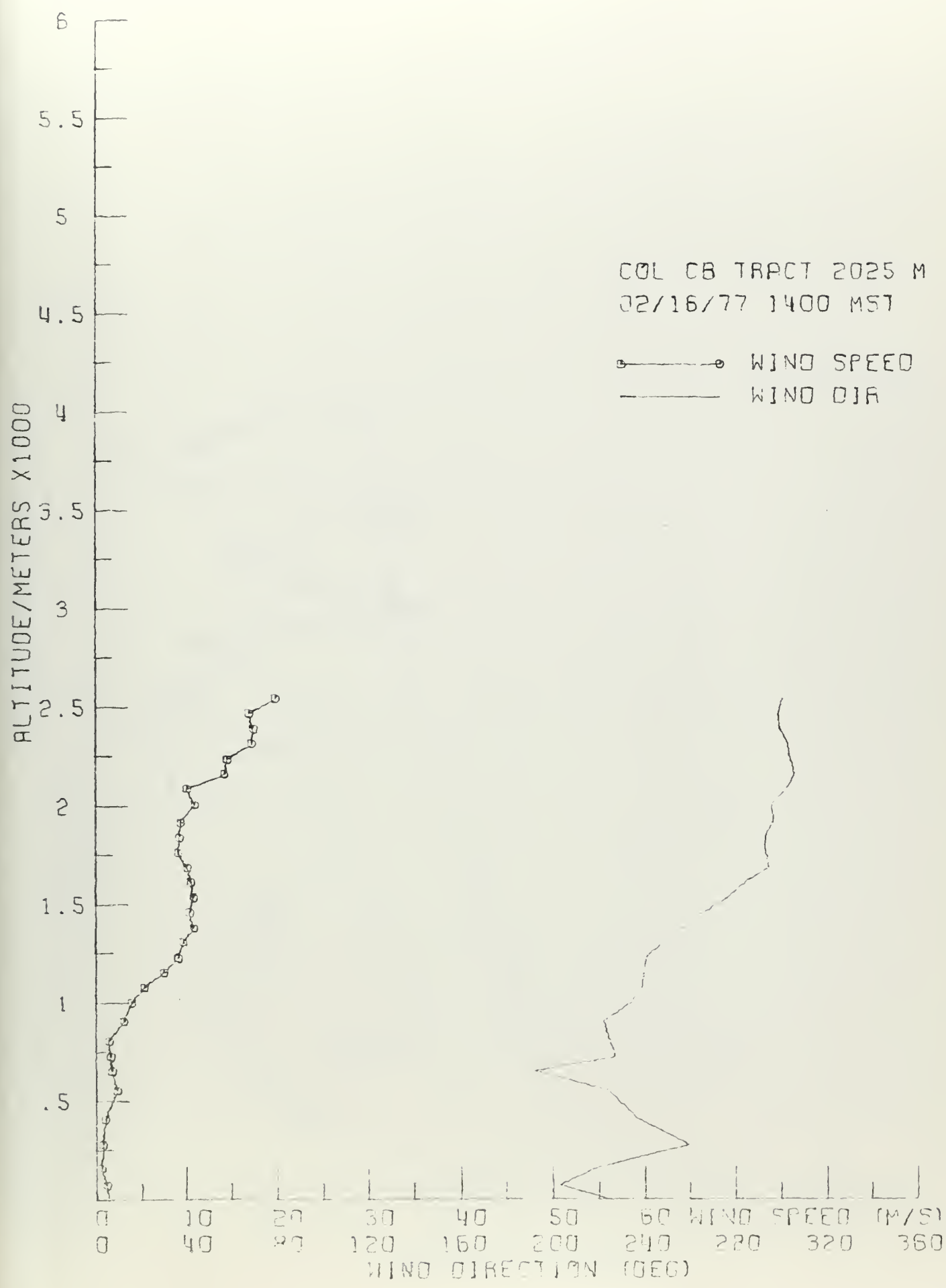
COL CB TRACT 2025 M
02/16/77 0825 MST

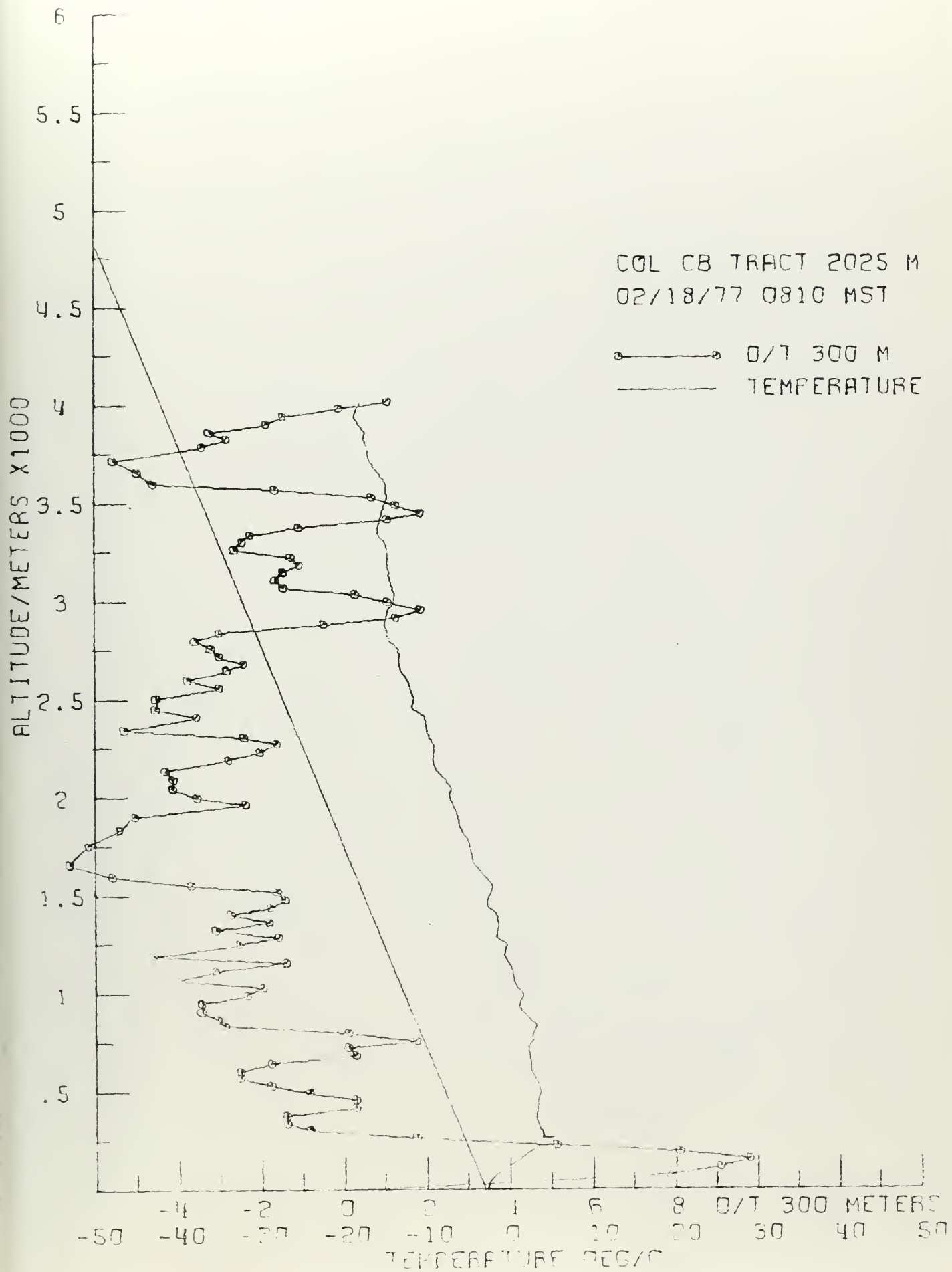
WIND SPEED
WIND DIR

ALTITUDE/METERS X1000

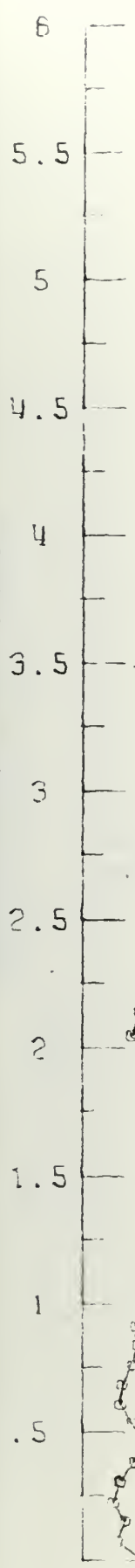






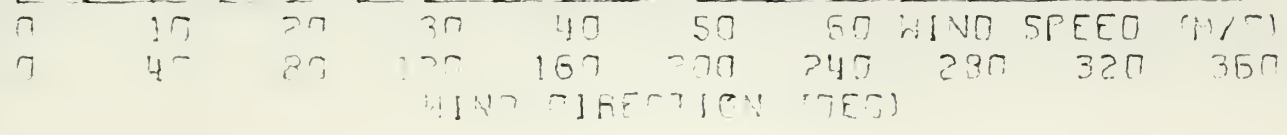


ALTITUDE/METERS X1000



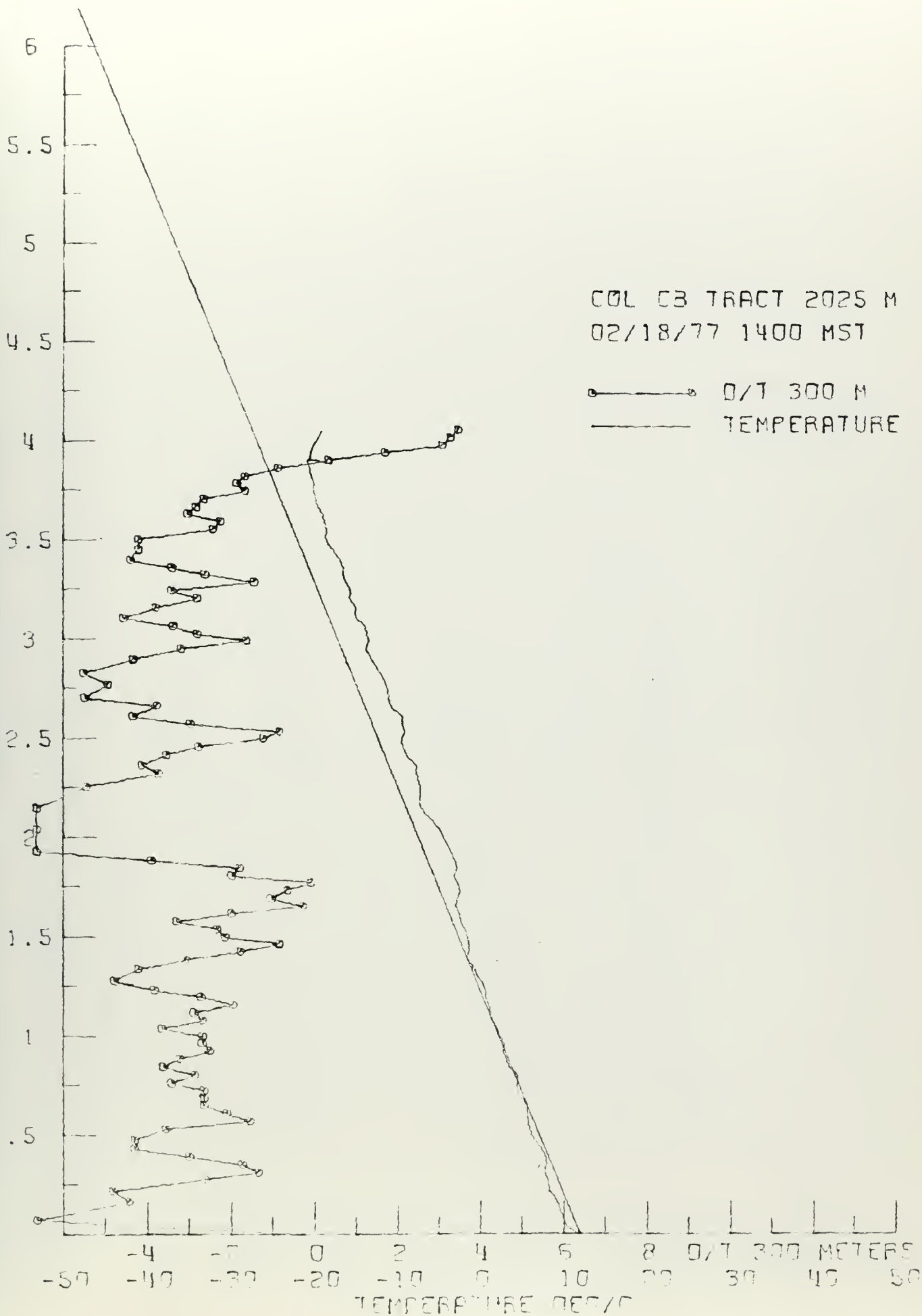
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02/18/77 0810 MST

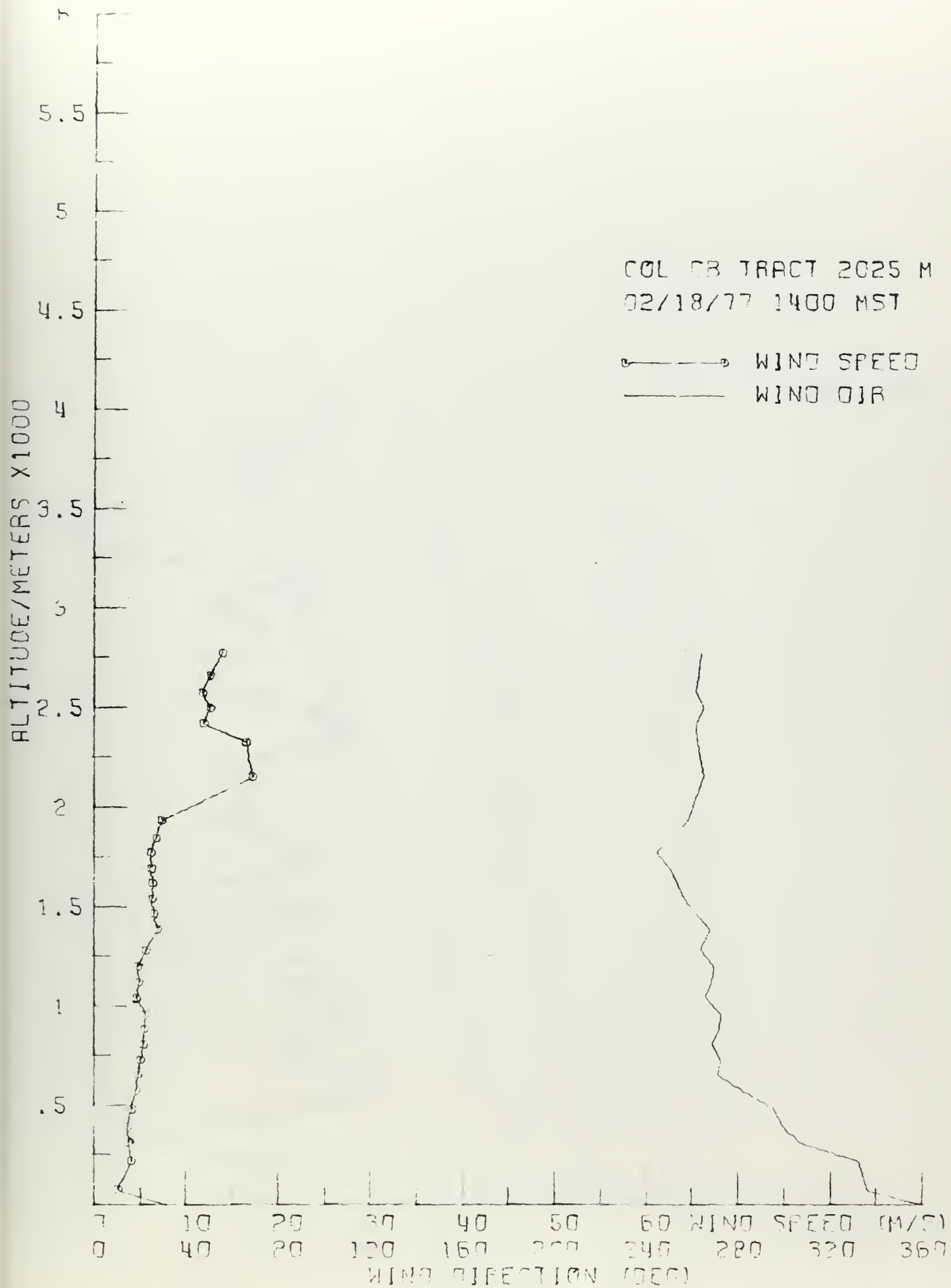
○—○ WIND SPEED
— WIND DIR

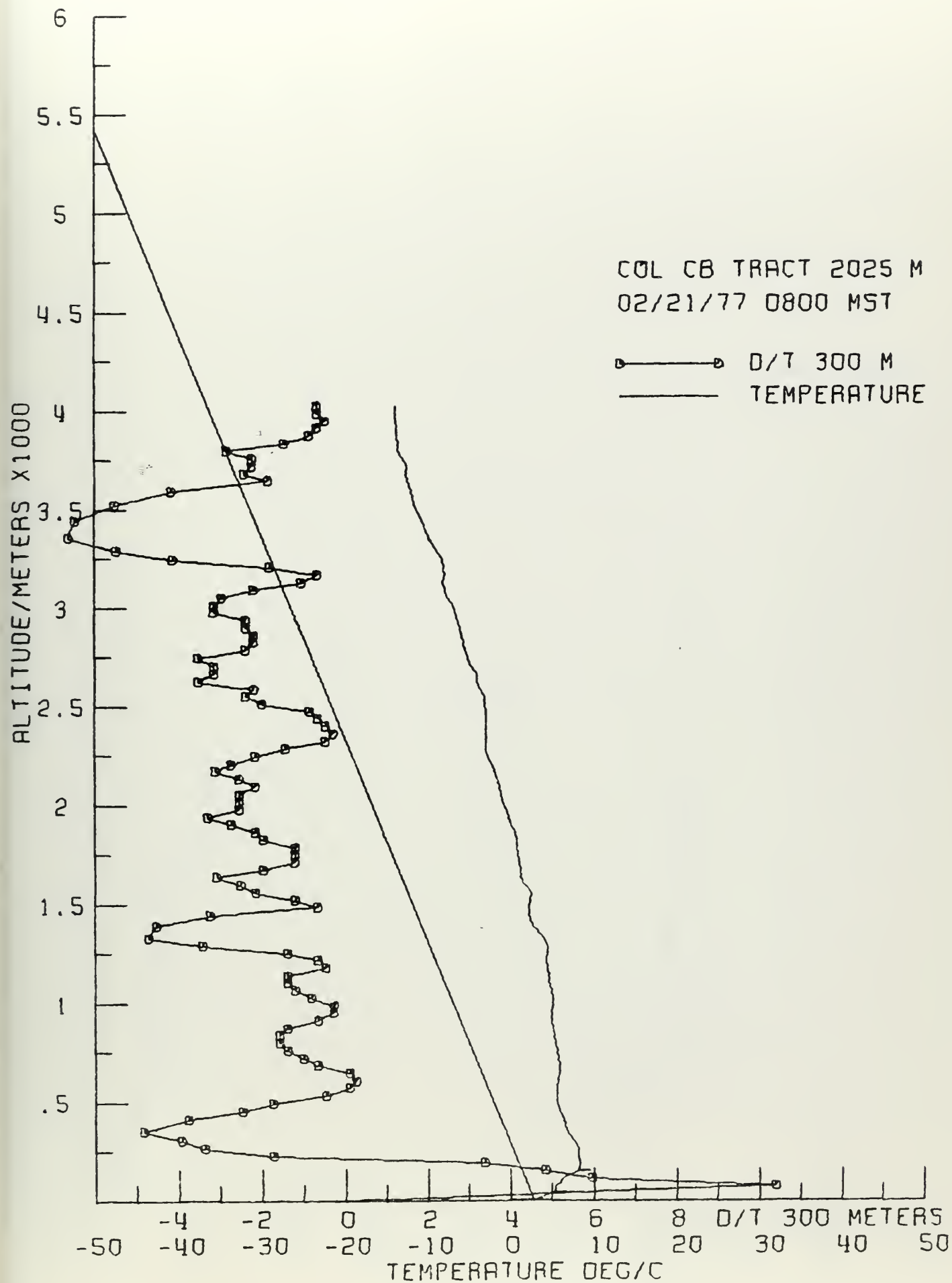


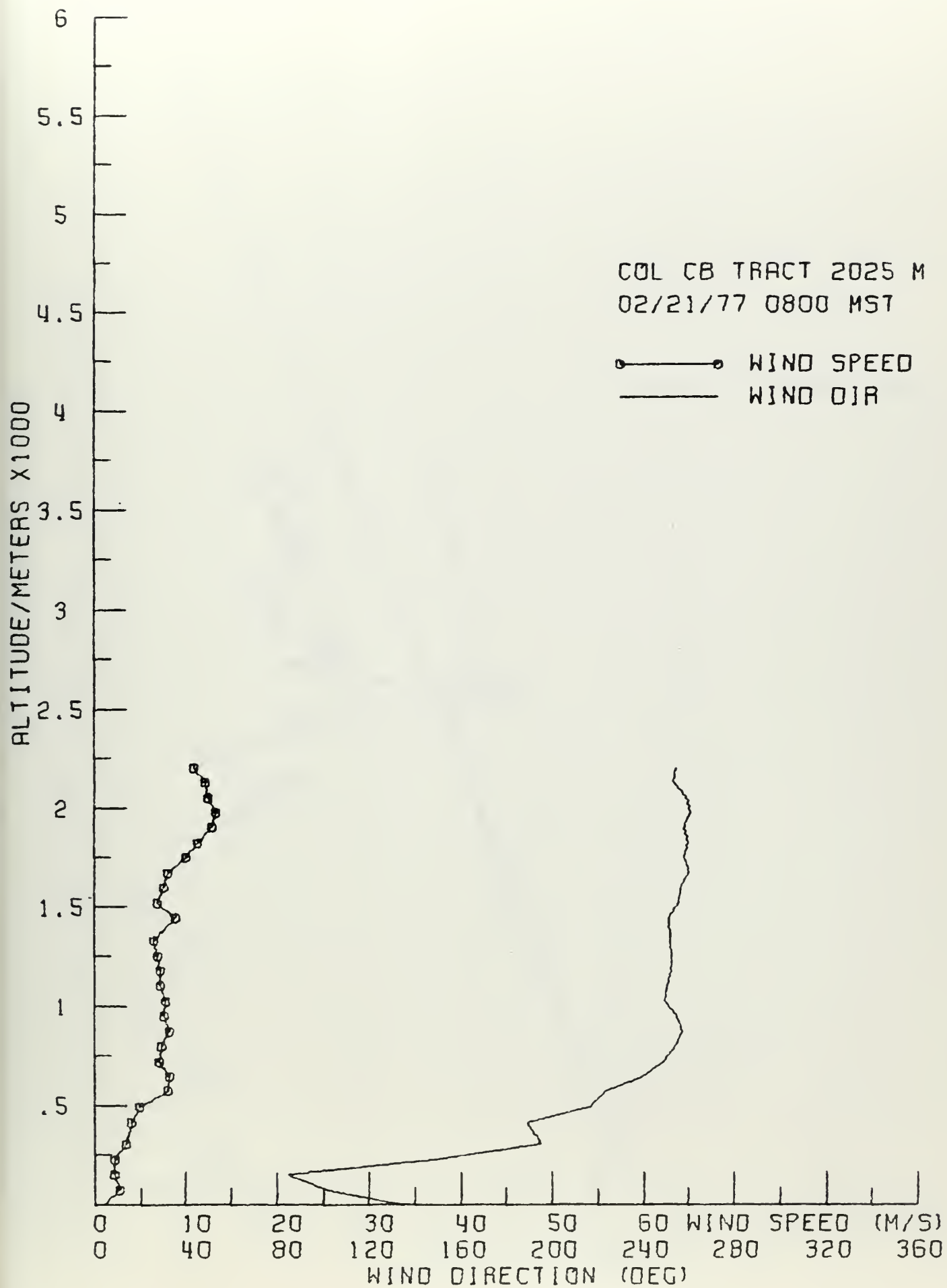


ALTITUDE/METERS X1000









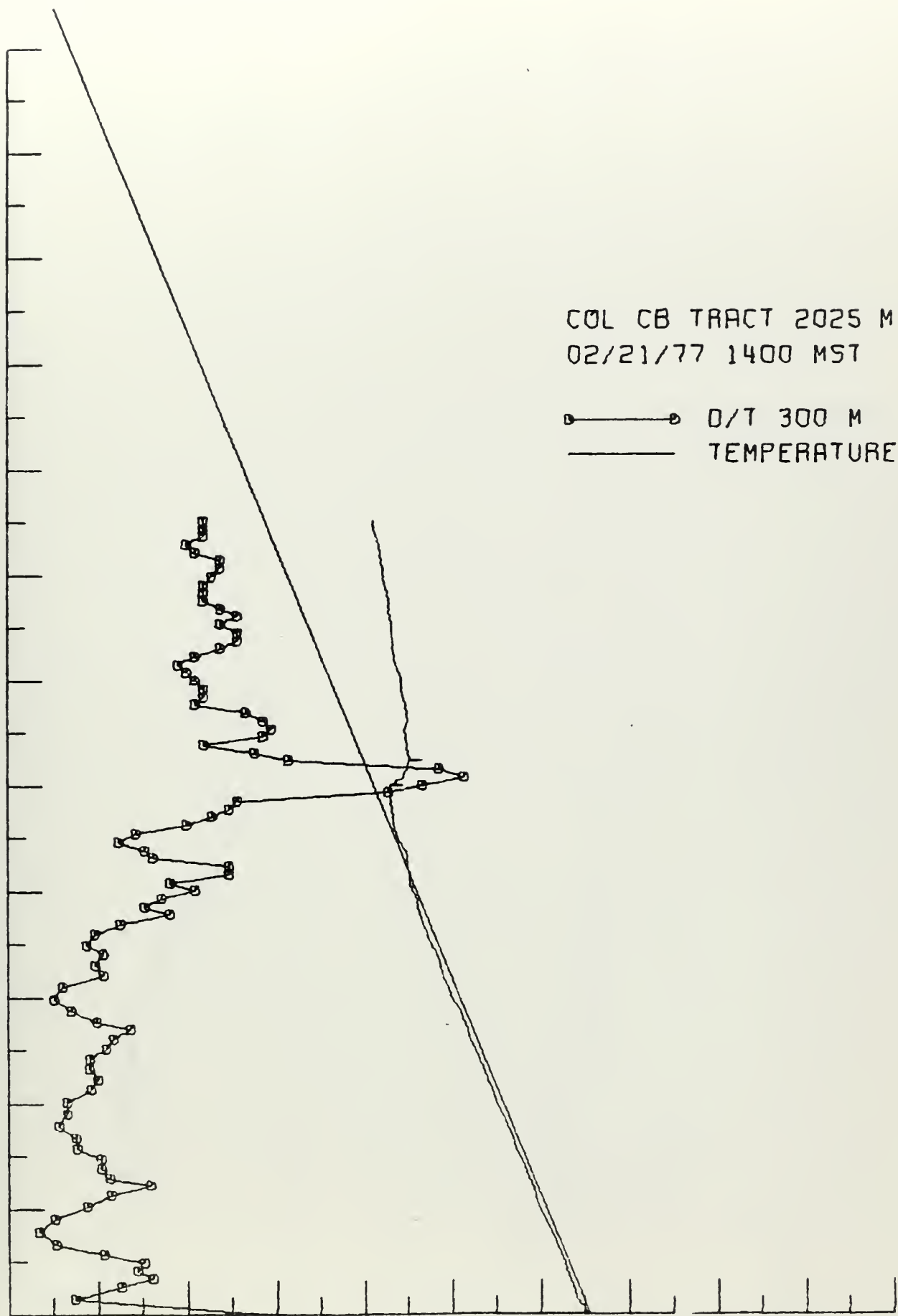
ALTITUDE/METERS X1000

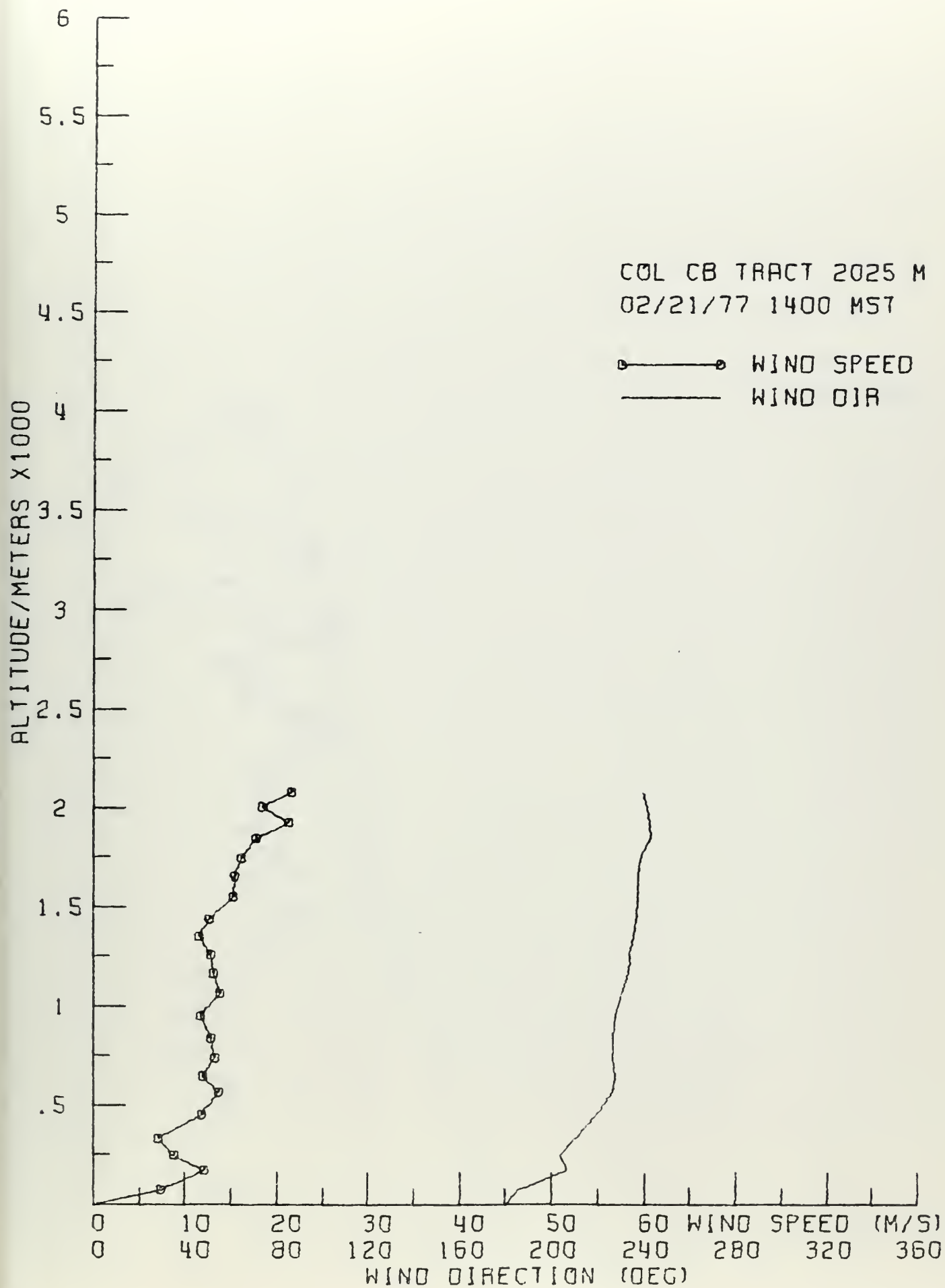
6
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COL CB TRACT 2025 M
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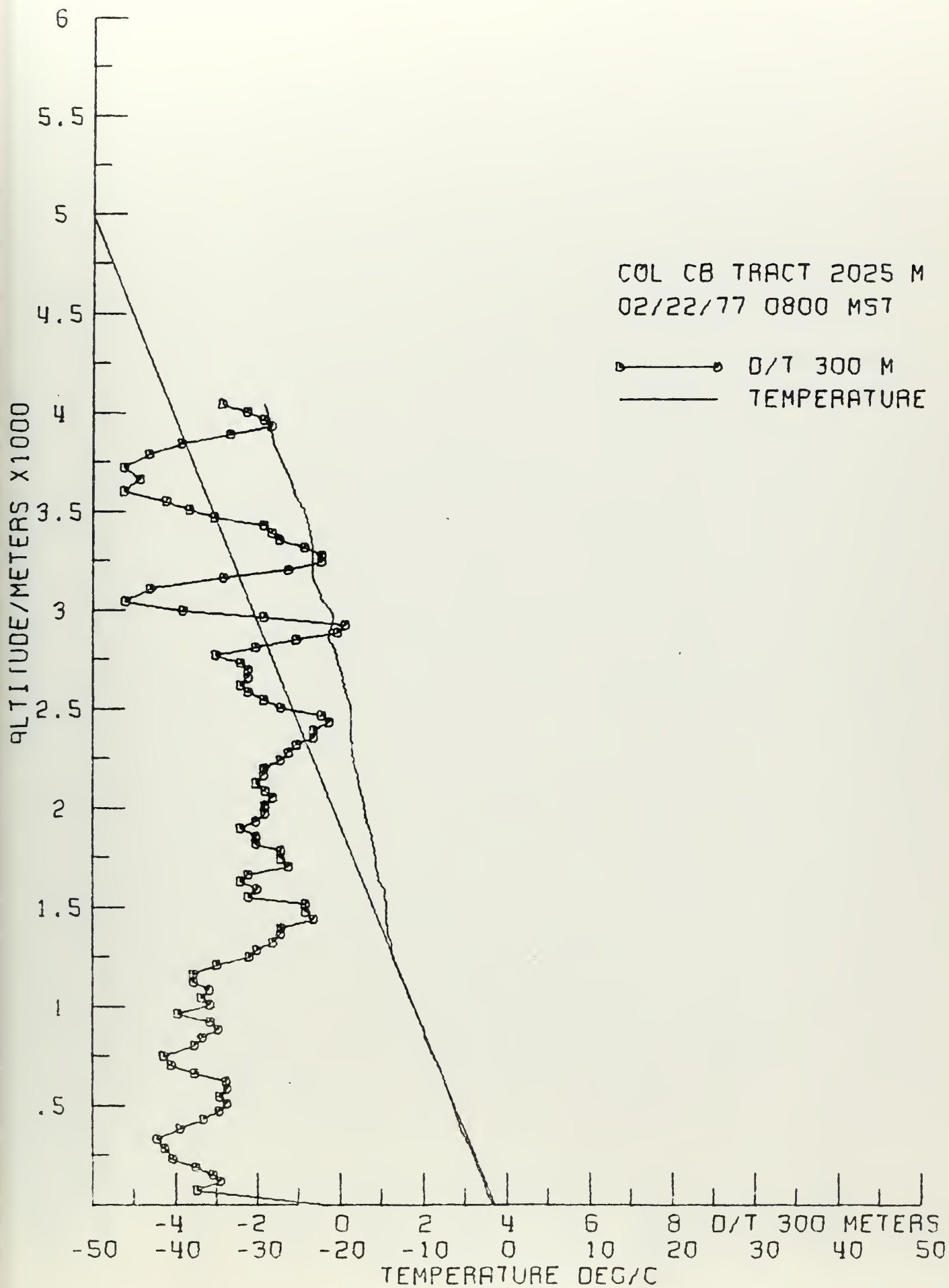
○ — ○ D/T 300 M
— TEMPERATURE

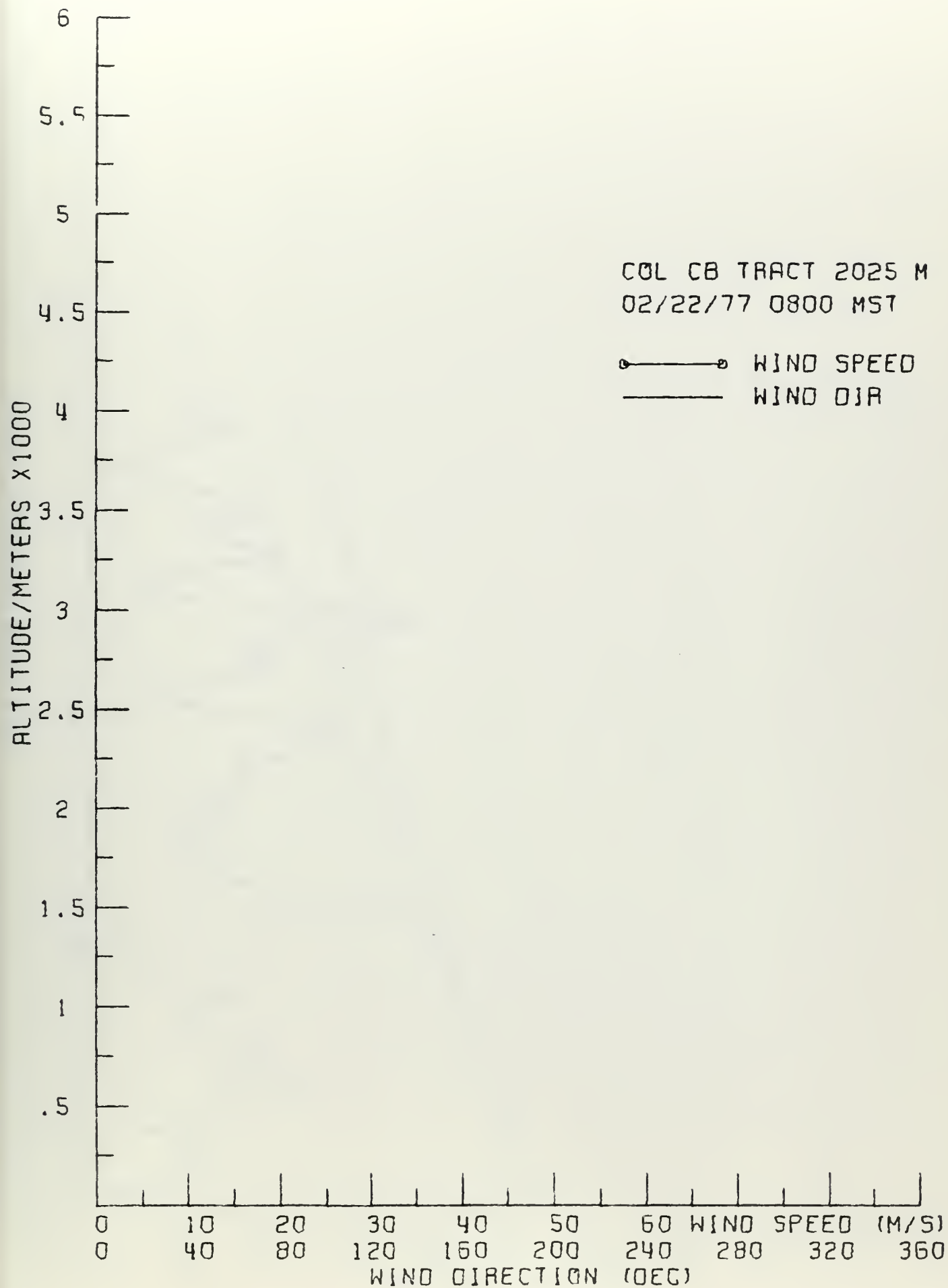
-50 -40 -30 -20 -10 0 10 20 30 40 50
D/T 300 METERS
TEMPERATURE DEG/C

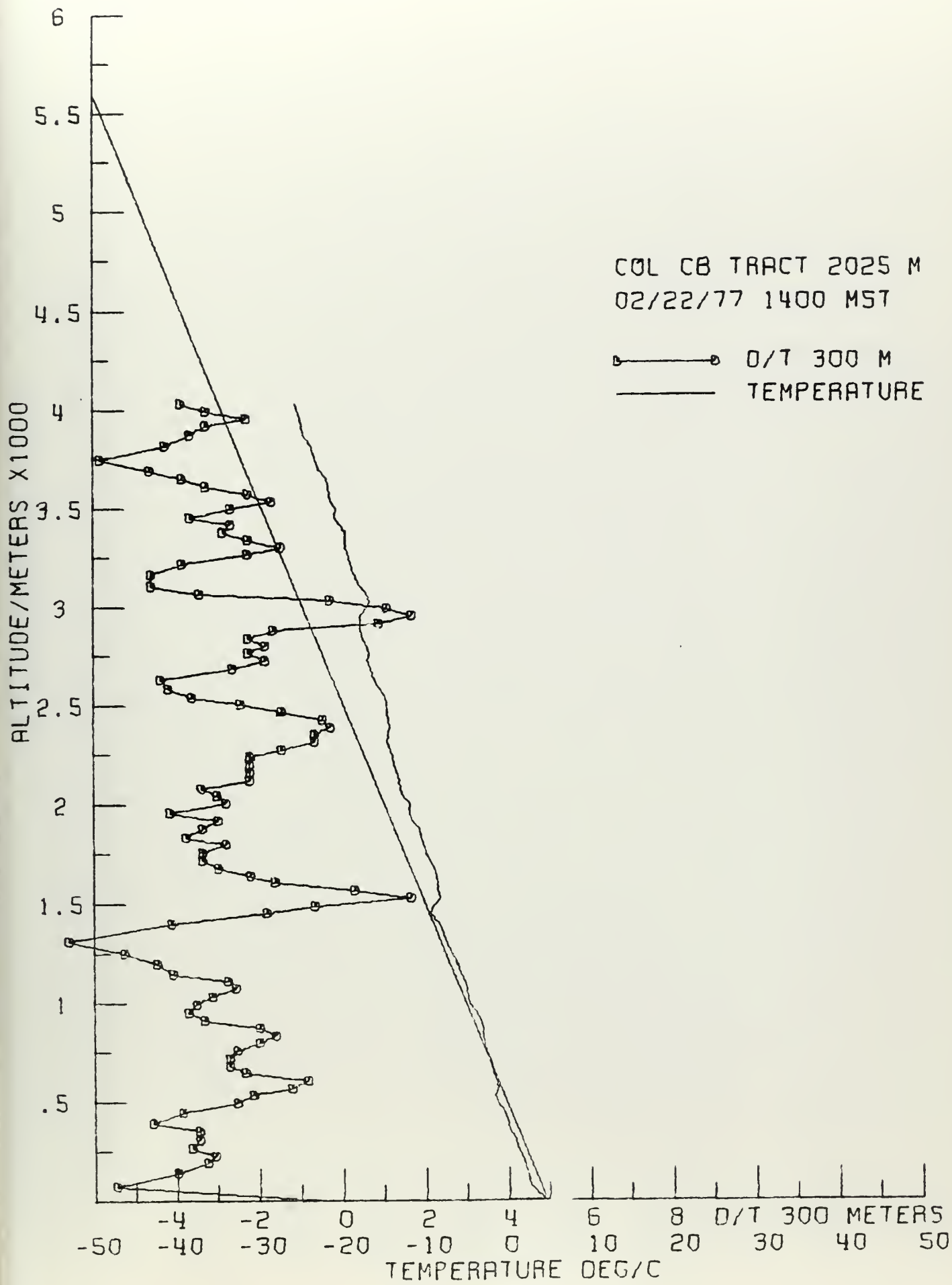


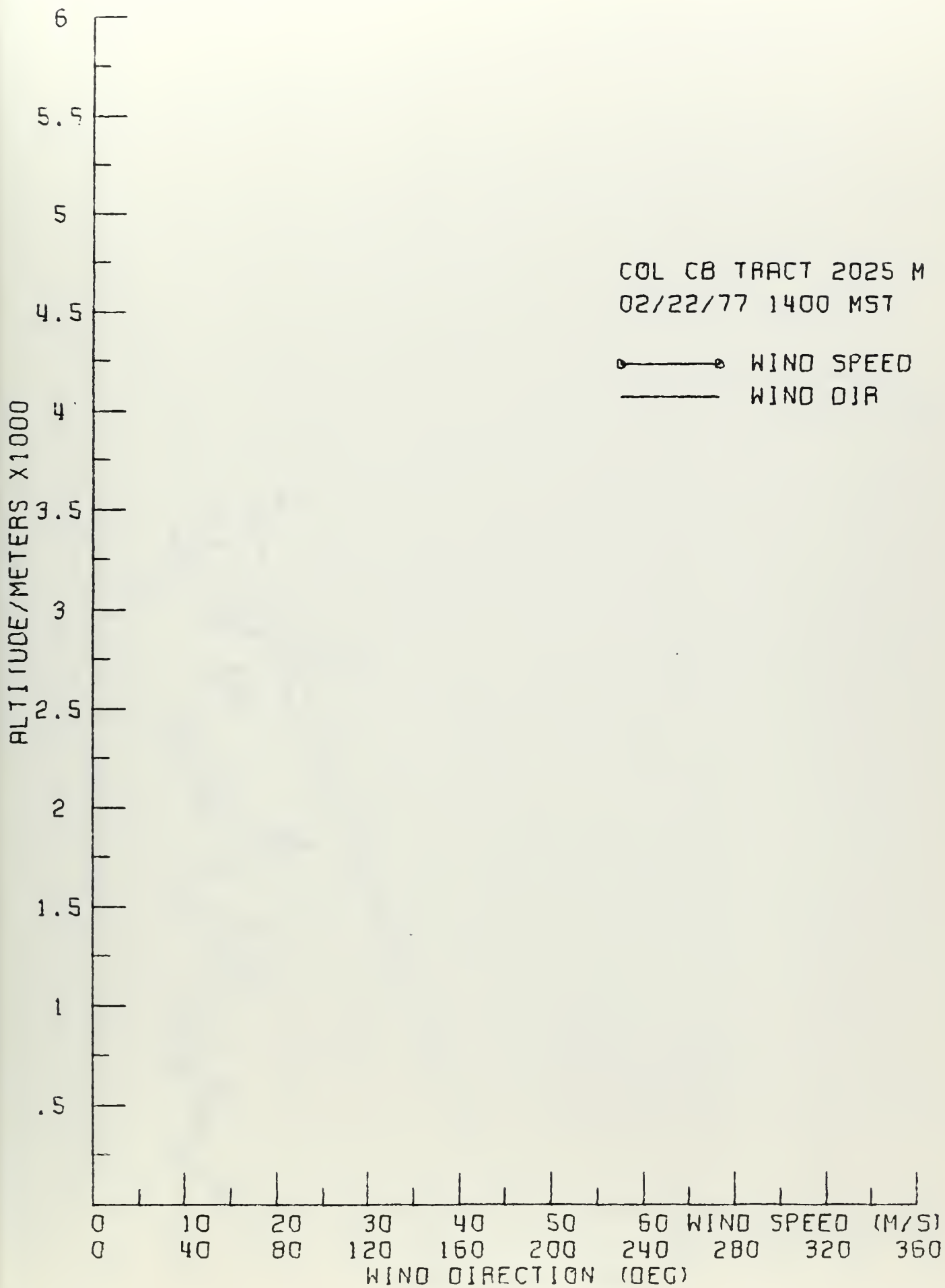


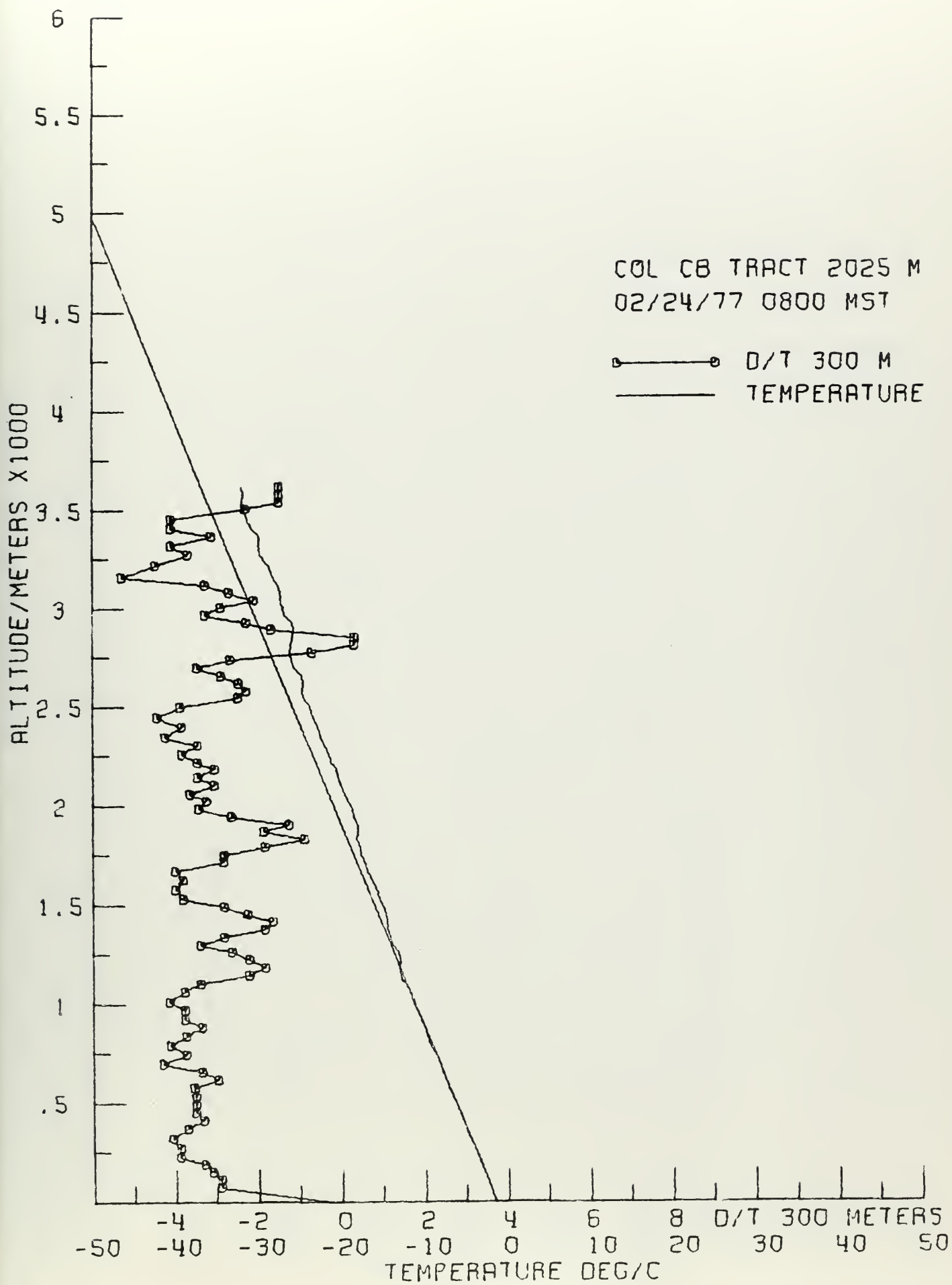


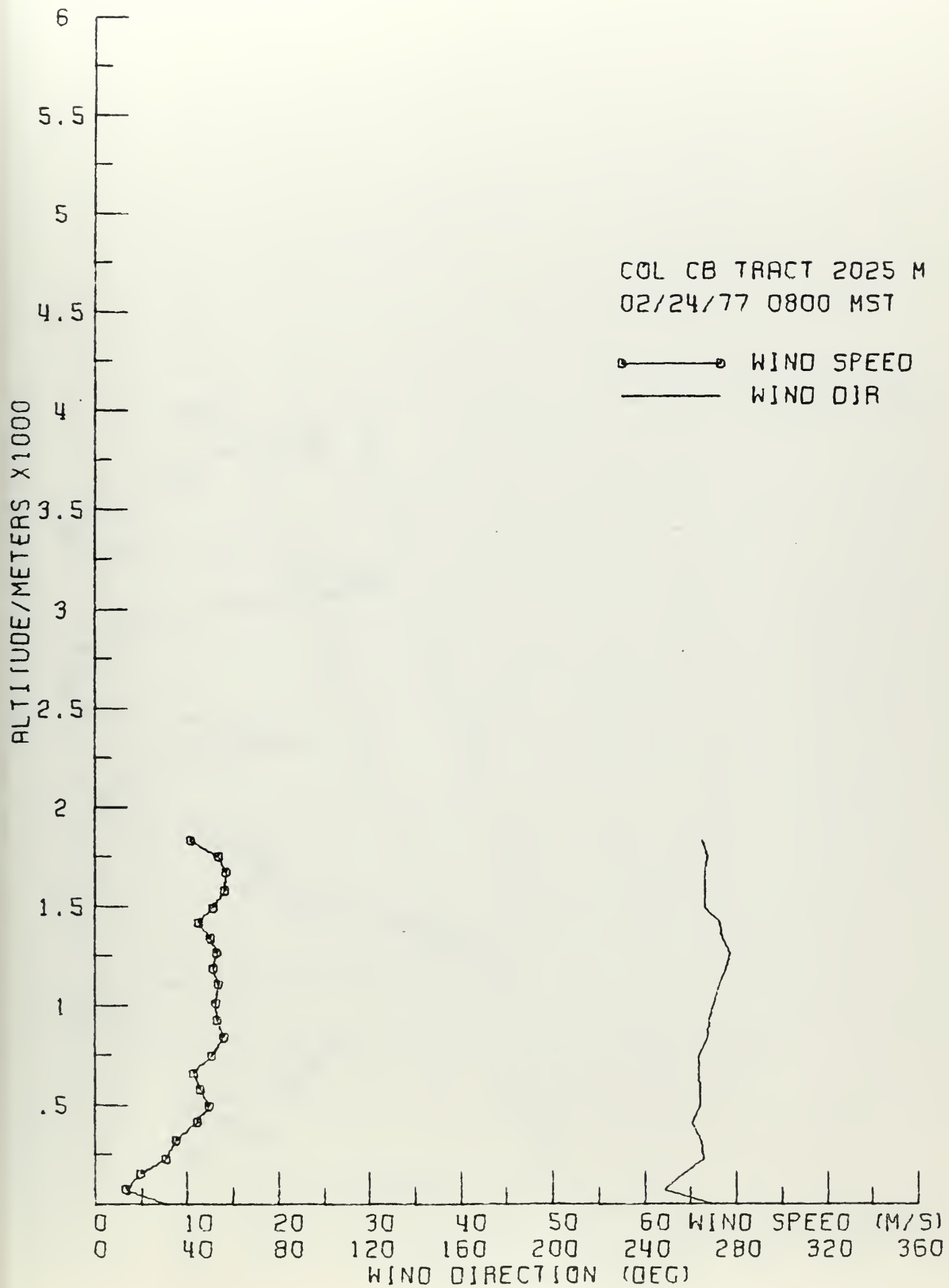


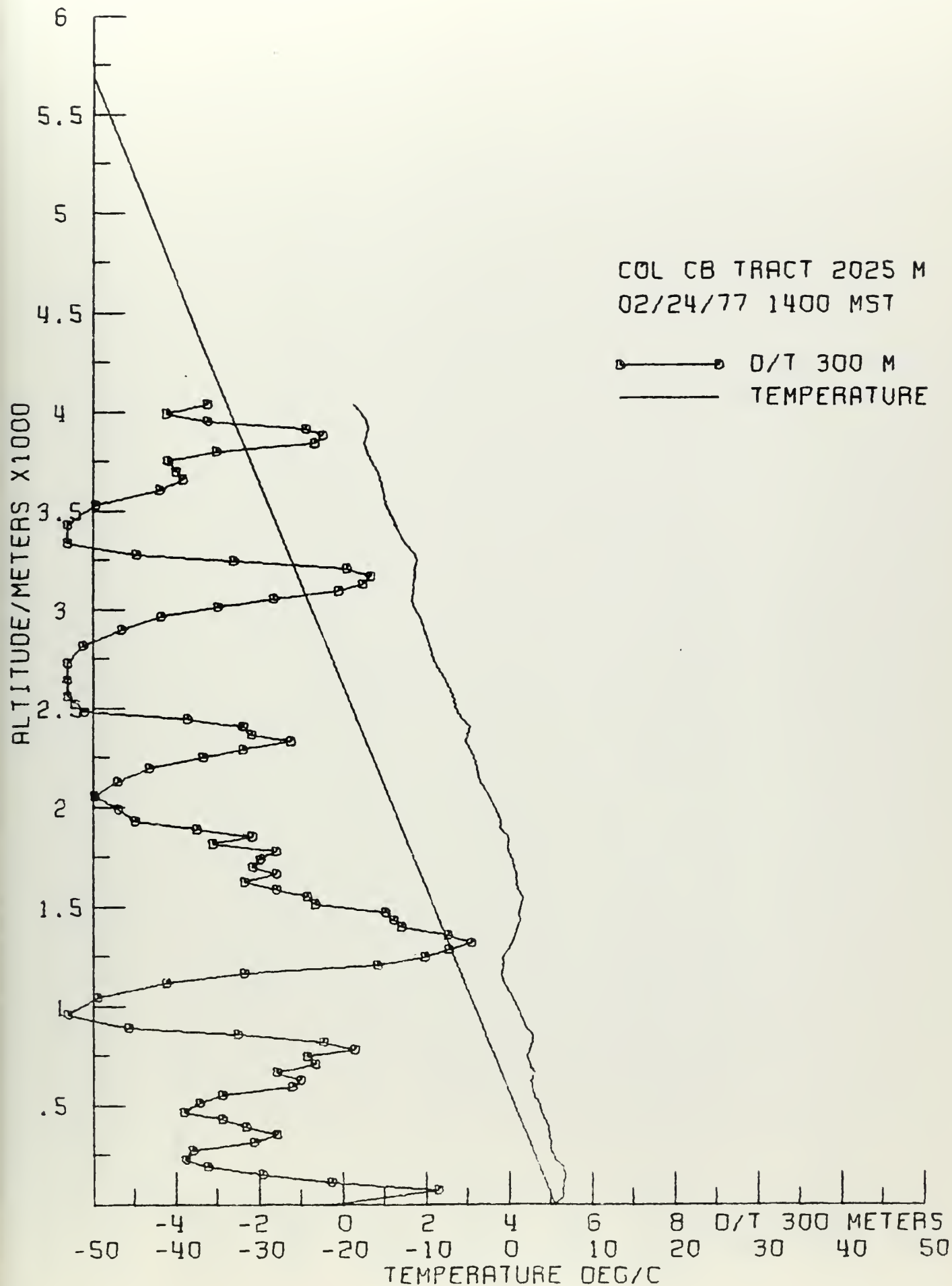


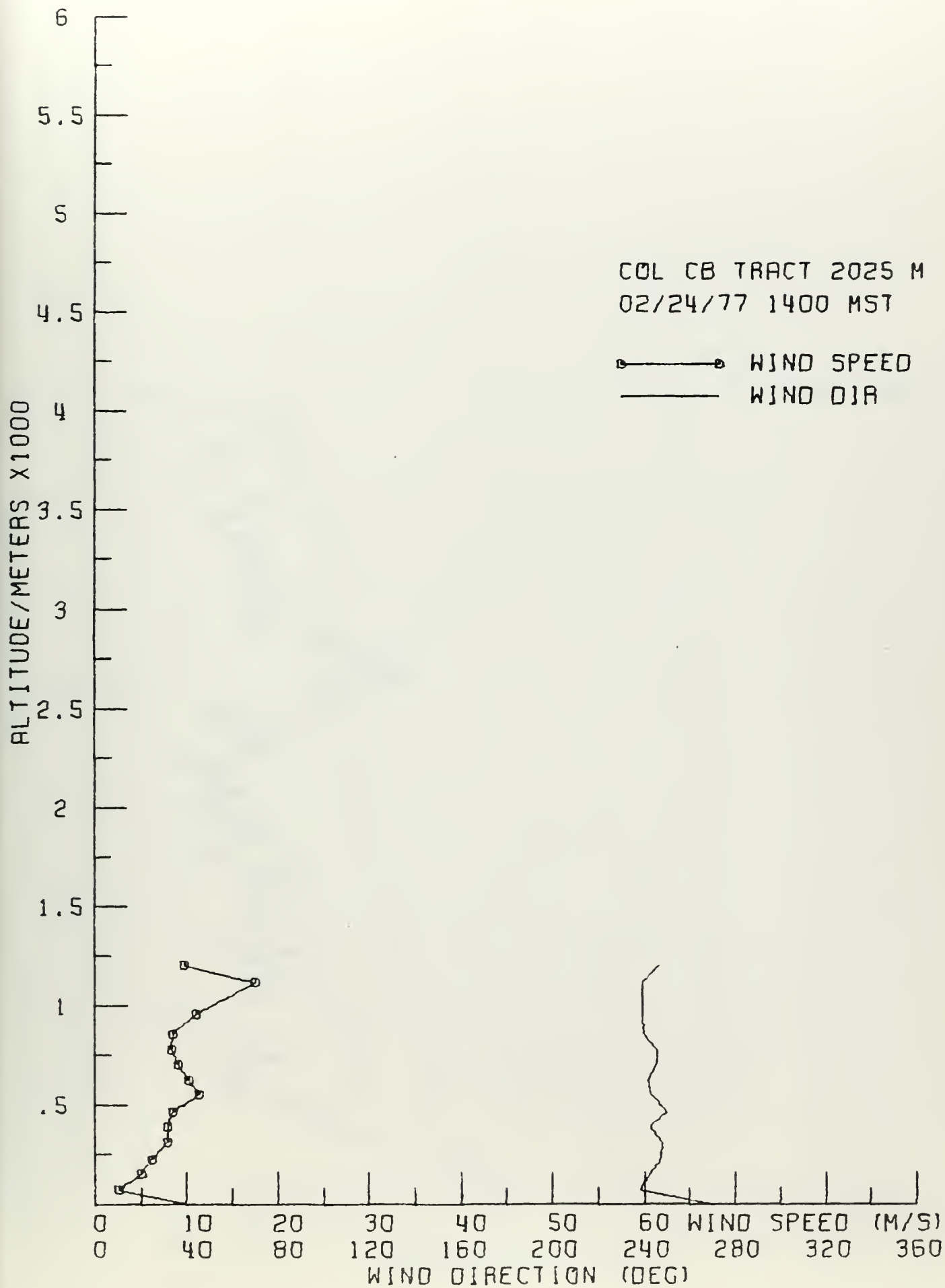


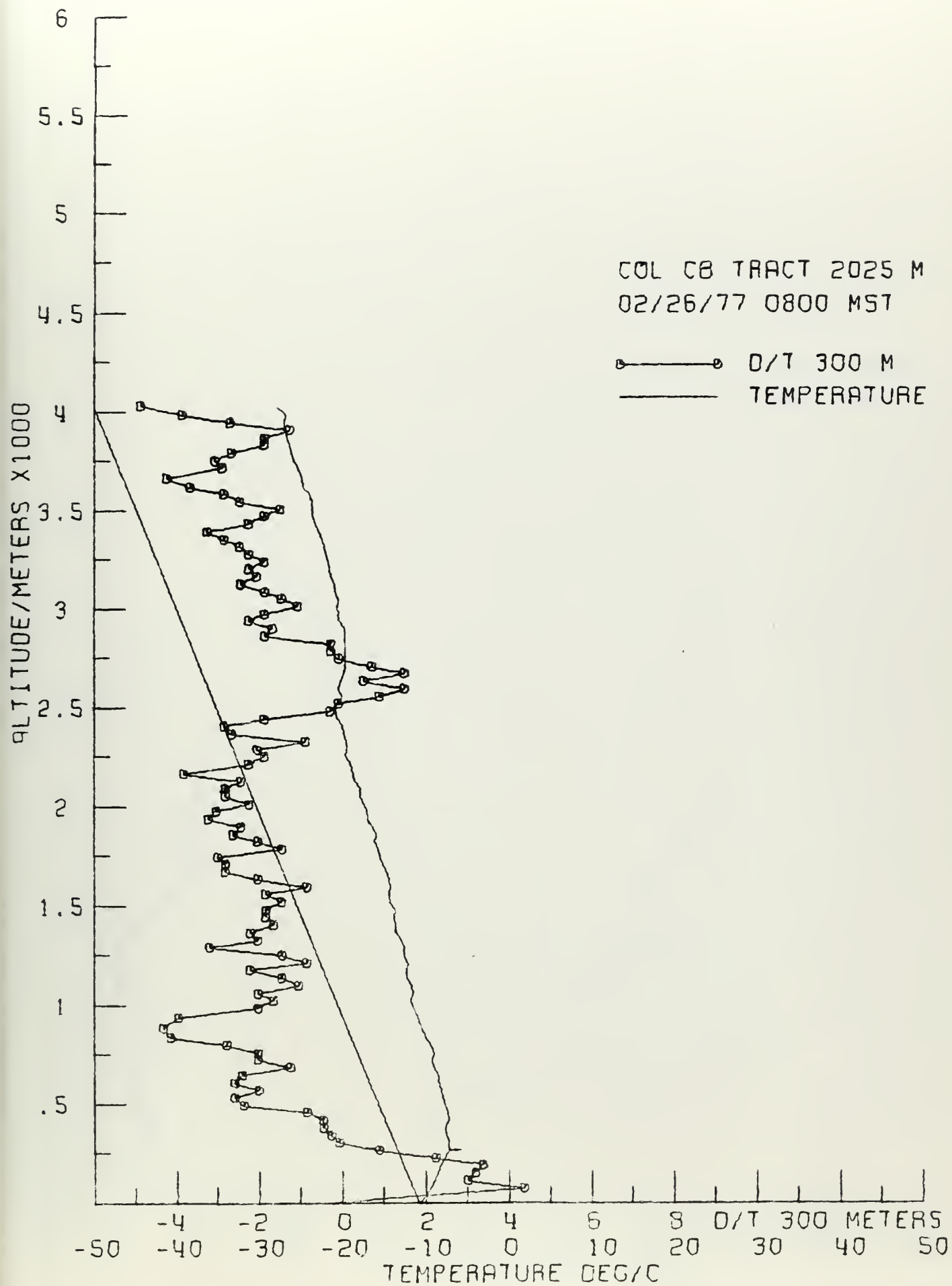


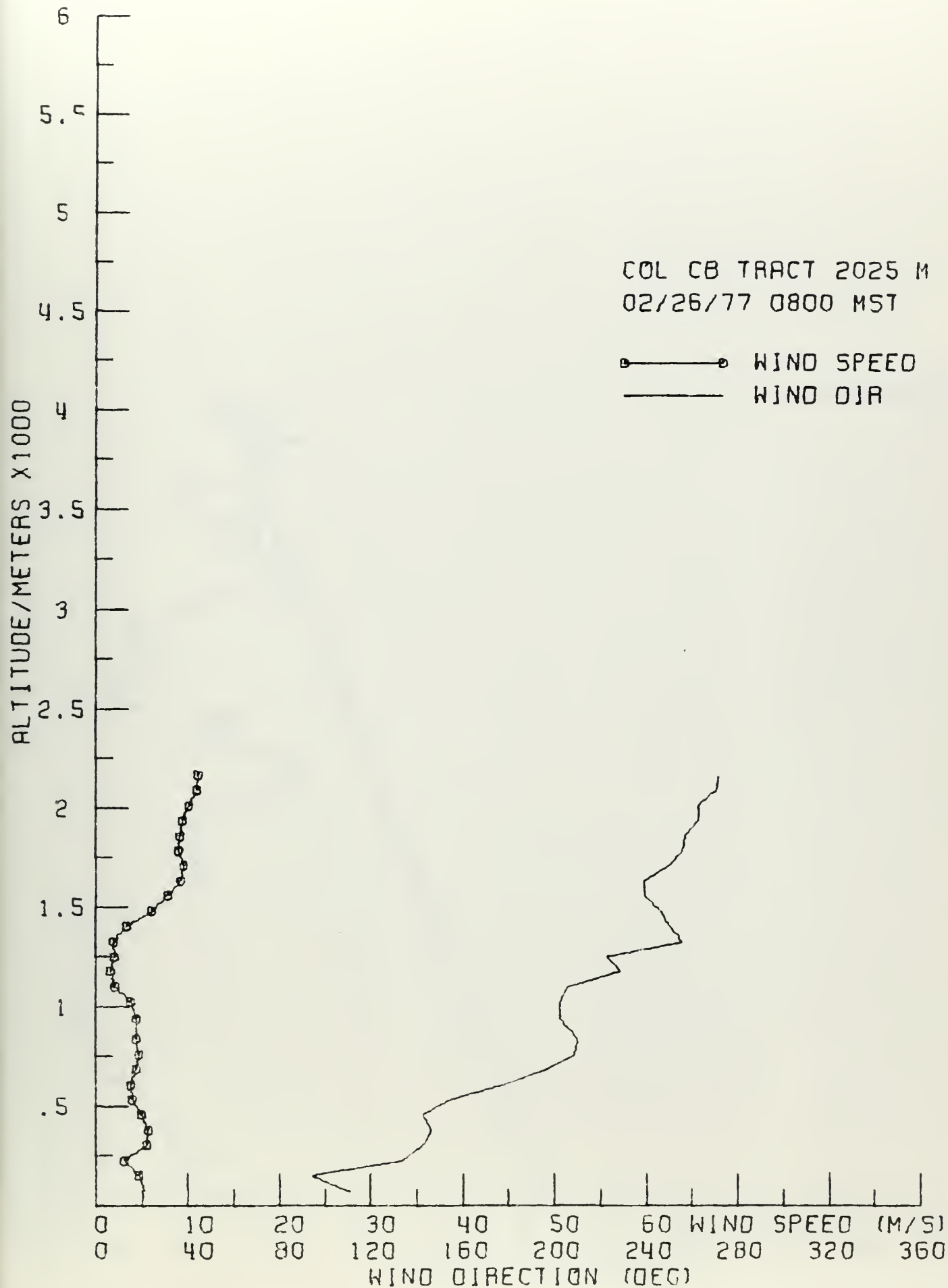


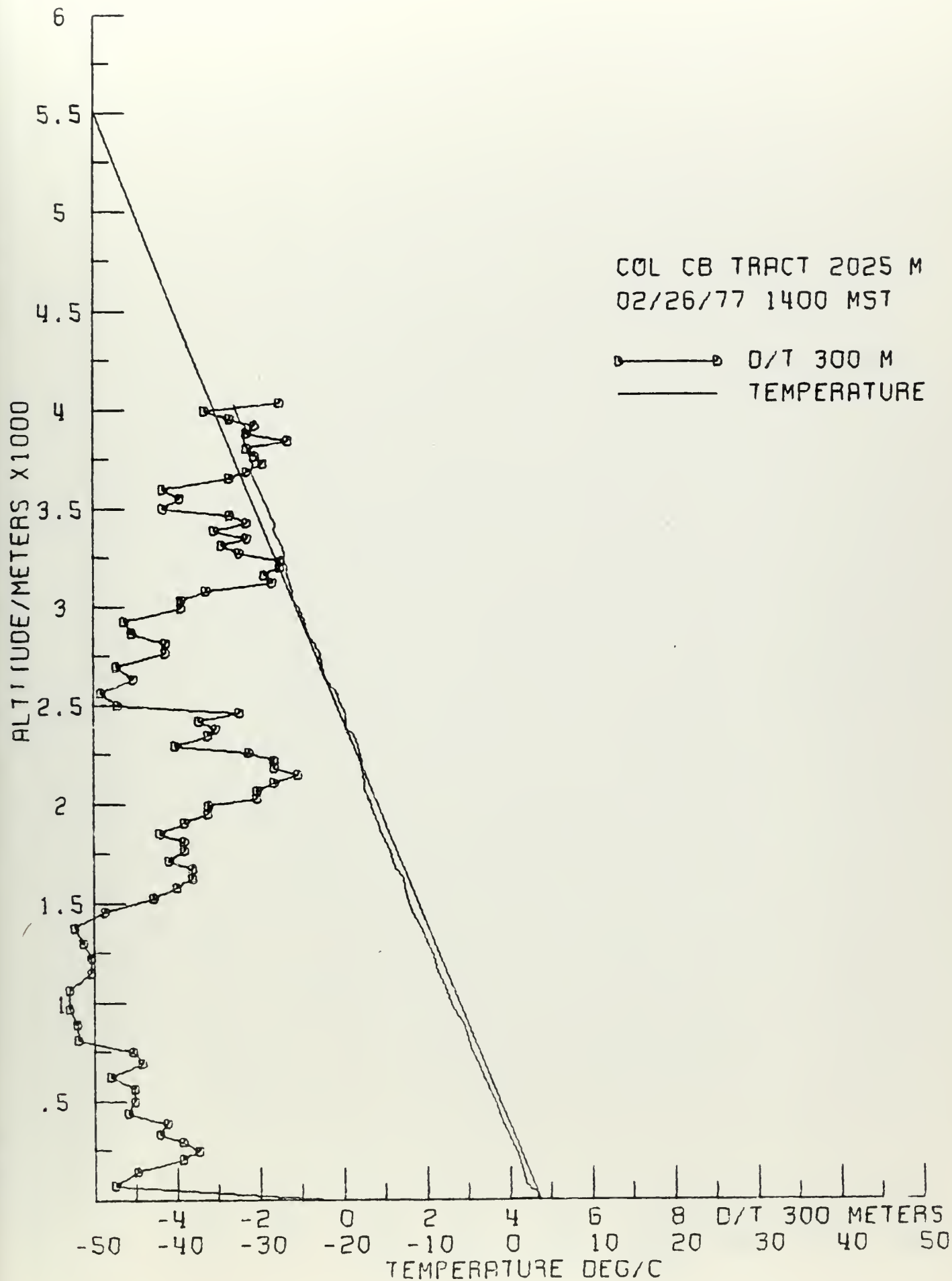


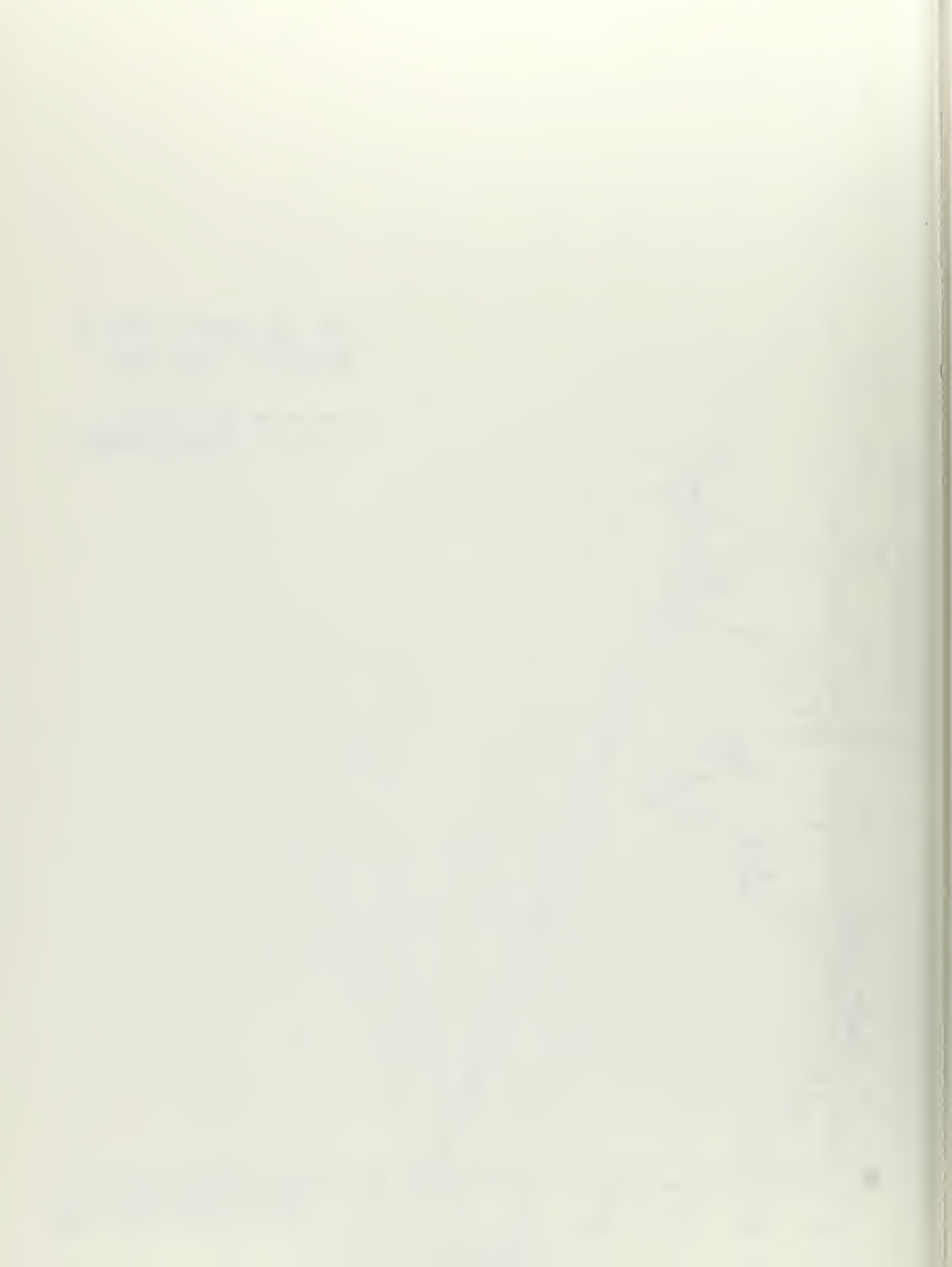


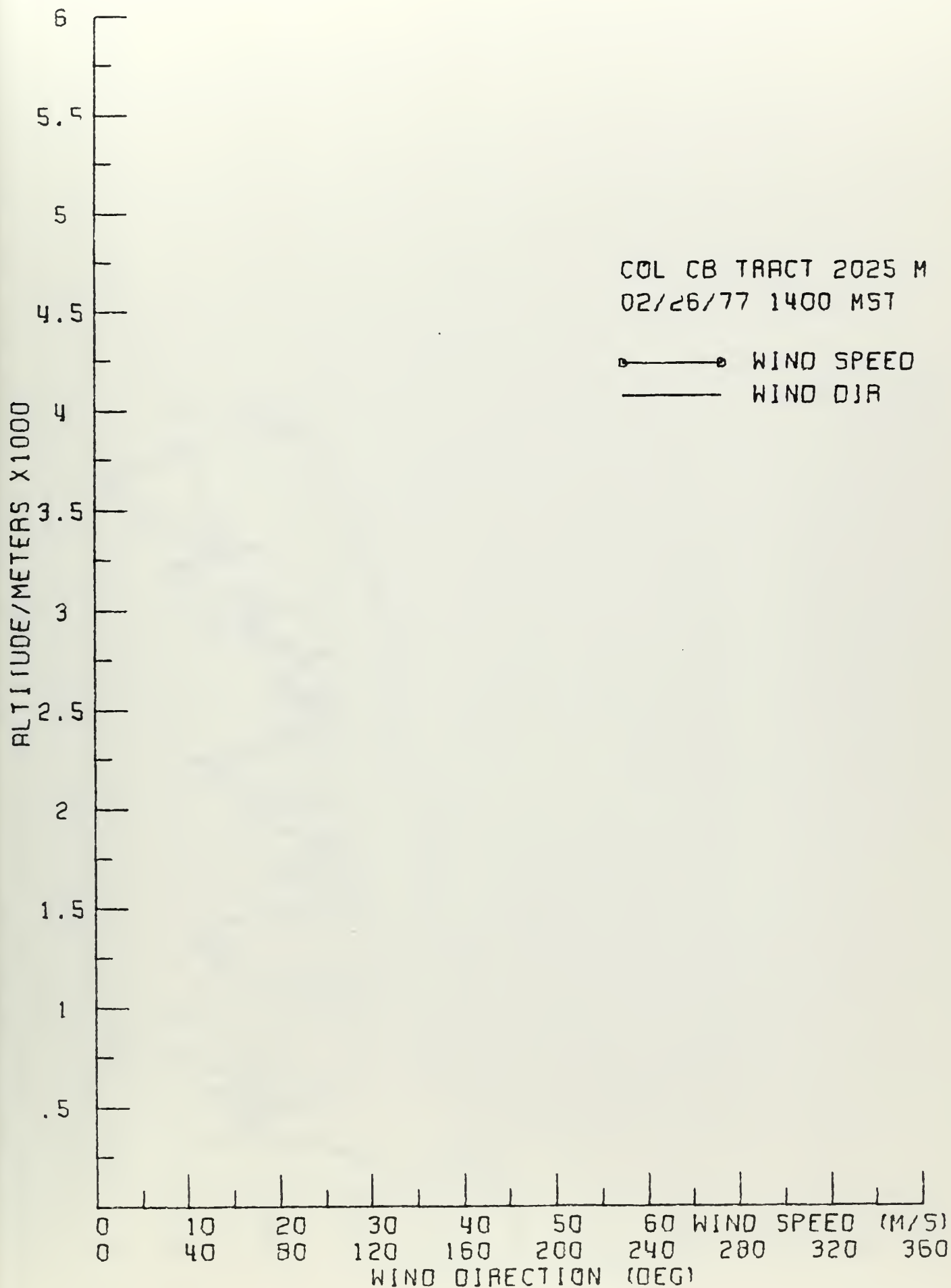


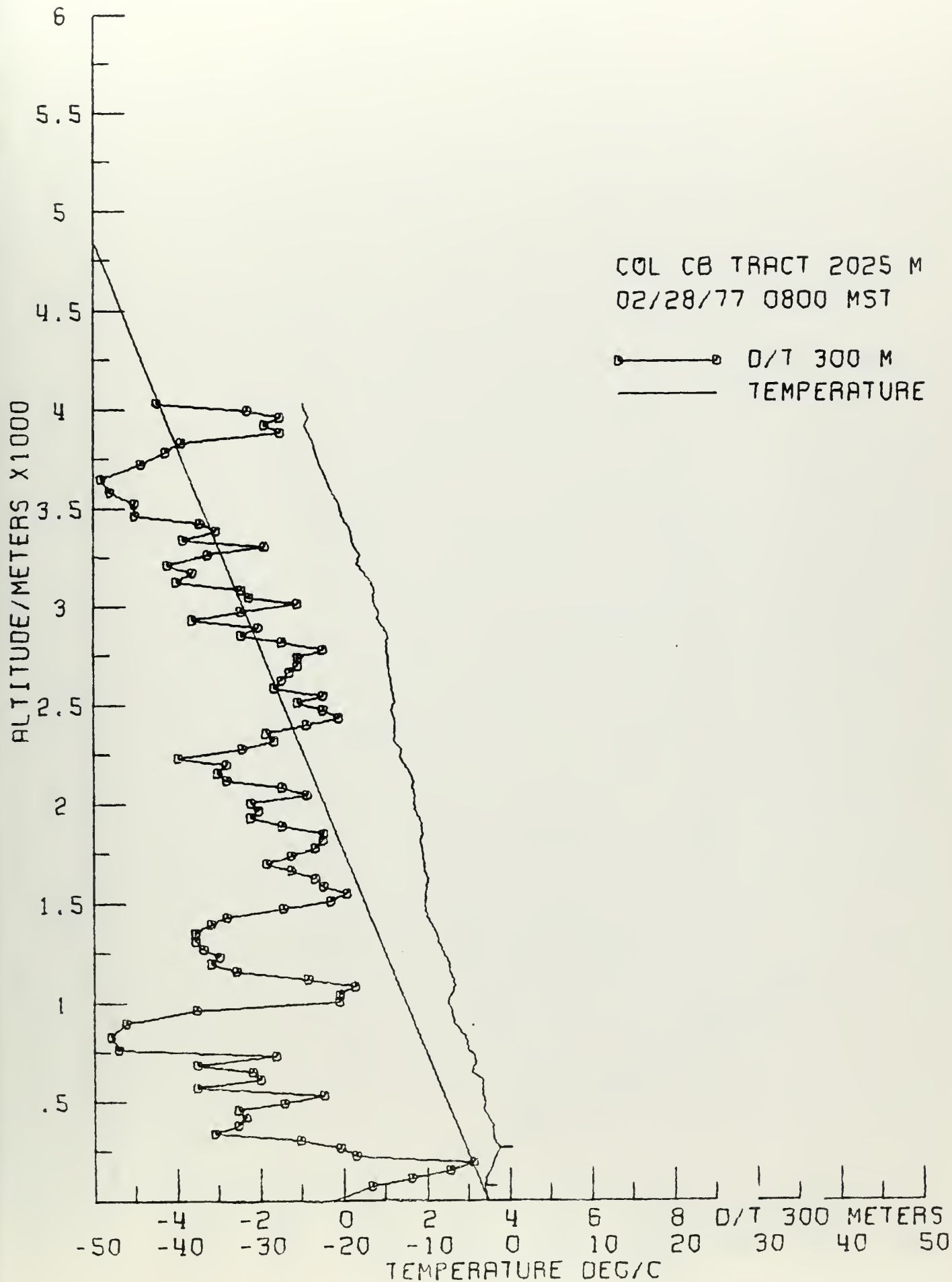






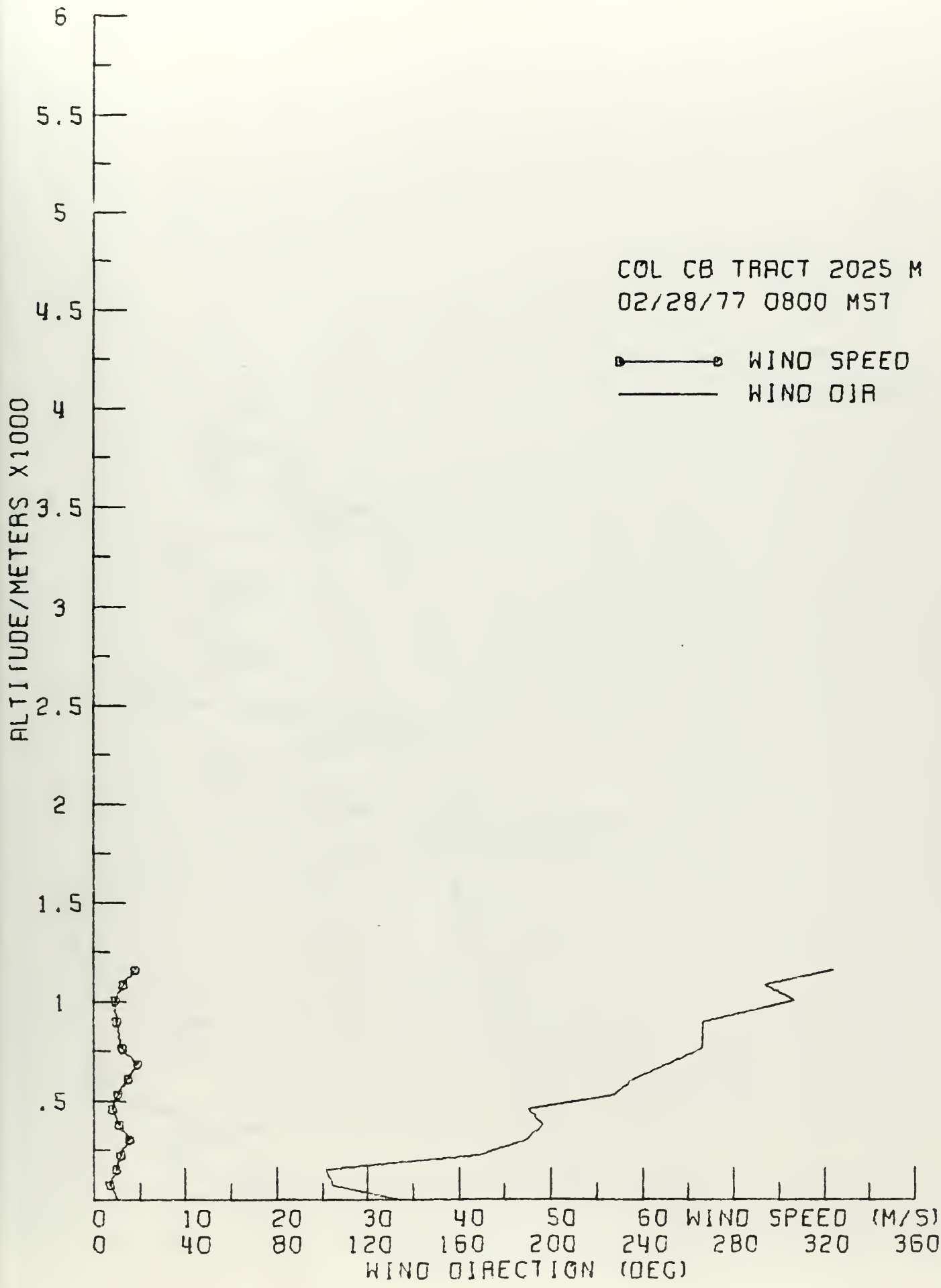


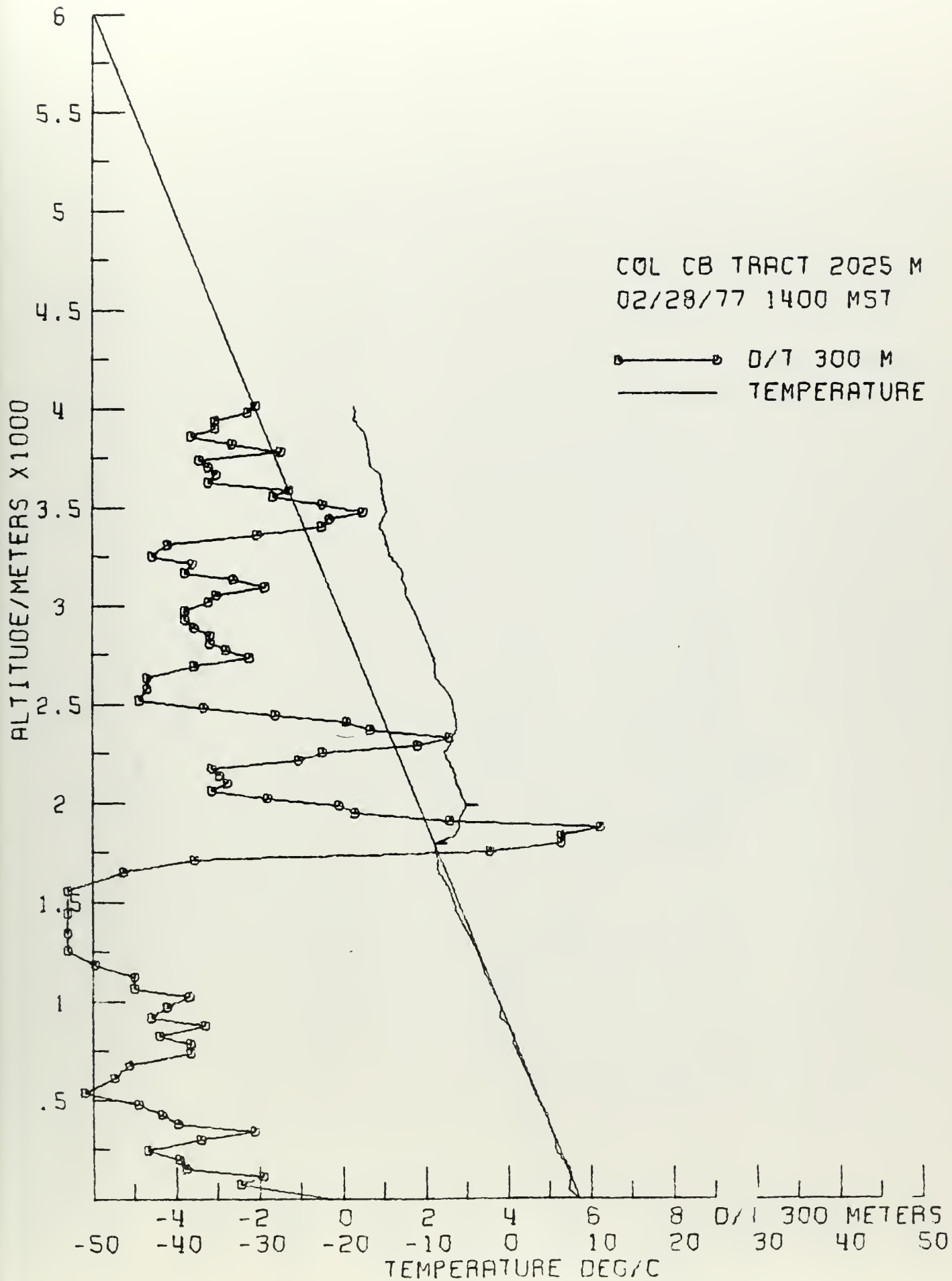


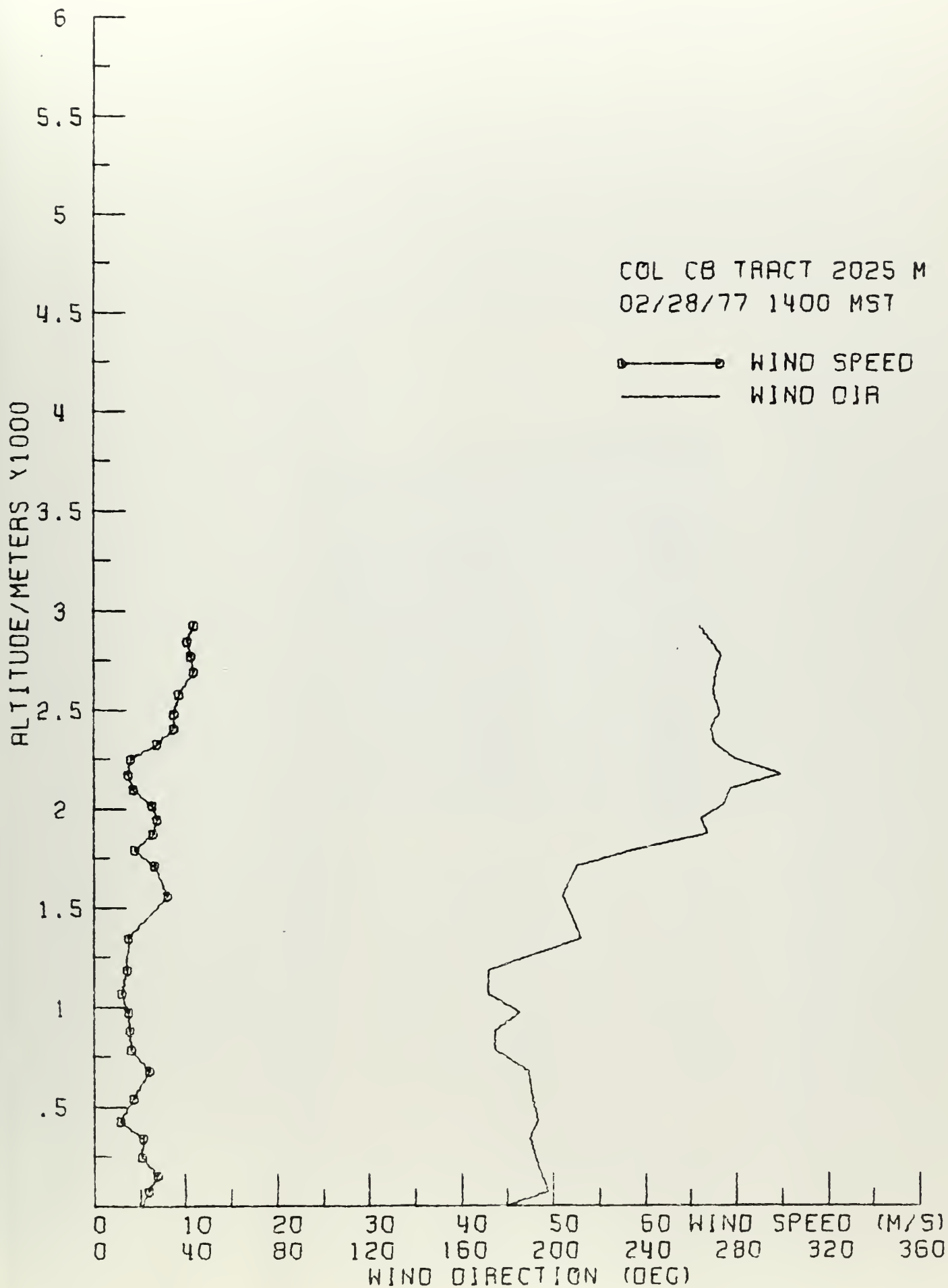


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Form 1279-3
(June 1984)

BORROWER'S

TN 859 , C&A 03743

Monthly progress report
for the period

DATE LOANED	BORROWER

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JUN 14 1977

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AREA OIL SHALE SUPERVISOR
U.S. G.S.